

ANNUAL REPORT FOR 2000



**Mildred Woods Mitigation Site
Edgecombe County
Project No. 6.09902T
TIP No. R-2111/R-2112A**



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SUMMARY

The following report summarizes the monitoring activities that have occurred in the past year at the Mildred Woods Mitigation Site. This site was originally constructed in 1995 and planted between January and February 1996. In February 1996, twenty-seven gauges were installed in locations identified in the mitigation plan and six additional gauges (Nos. 28-33) were installed near borrow pit 1. In April 1996, six more gauges (Nos. 34-39) were installed near borrow pit 2. These gauges were incorporated into the scheduled downloads for the Mildred Woods site. In January 1999, additional 33 gauges (Nos. 1C - 33C) were installed to further aid in the hydrologic analysis. The success criteria for these additional gauges have been established and are presented in Table 1 of this report.

Two Infinity rain gauges were installed in May 2000. These rain gauges are more reliable than the previously installed RDS rain gauges at the site. Prior to May 2000, rainfall data for the site was recorded at a Tarboro rain gauge, maintained by the NC State Climate Office at N. C. State University.

Hydrologic monitoring indicated that of the 76 gauges currently on site, 53 gauges either met or exceeded their respective hydrologic expectations. Upon reviewing previous data, it can be seen that gauges meeting their expected hydrology in years past are continuing to meet their expected hydrology. The vegetation data collected during the fifth year revealed the average density to be 584 trees per acre, which is well above the 320 trees per acre required by the minimum success criteria. On a plot by plot evaluation, only Plot 2 and Plot 20 had less than the required 320 trees per acre. Based on the vegetative success of the site for the past five years, NCDOT recommends annual vegetative monitoring discontinue.

In a letter dated September 30, 1997, NCDOT transmitted a report titled Effects of Borrow Pit Water Elevations and Ditch Improvements on the Mildred Woods Site. This report discussed the site modifications implemented by NCDOT during March 1997 because of flooding issues associated with the adjacent Ruffin property and the potential subsurface structural problems for portions of US 64. The report also outlined permanent measures to provide proper drainage of adjacent properties north of the site, to maintain the structural integrity of the US 64 crossing, and to minimize the loss of wetland restoration potential. These permanent modifications have continued to be delayed because of the lack of right of way negotiations for with the permanent site modifications and the departures of key NCDOT personnel responsible for this mitigation site. The modifications, which will be done by Division 4 forces, are scheduled to be completed by May 2001. Additional surveys have to be done prior to the purchase of right of way. Due to concerns of the regulatory agencies about the

effect of increased hydrology on vegetation, NCDOT proposes to monitor the vegetation once the modifications have been completed.

Based on the hydrologic monitoring results from the 2000 growing season, NCDOT recommends that hydrologic monitoring continue.

1.0 INTRODUCTION

1.1 Project Description

As part of a mandate to improve the North Carolina Intrastate System, US 64 was extended on new location from the US 64/258/NC 44 Interchange south of Tarboro to a location west of Everettts at the US 64/SR 1405. The Mildred Woods Mitigation Site was created to compensate for unavoidable wetland losses incurred during roadway construction.

Located in Edgecombe County, the site is approximately three miles east of Tarboro. It encompasses approximately 593 acres and is situated near the Tar River, immediately adjacent to the newly constructed US 64 (Figure 1). Wetland plant communities will be reestablished on approximately 372 of the 593 acres. Plant communities include swamp forest (37 acres), Atlantic white cedar (2 acres), wet hardwood forest (214 acres), oak-hickory forest (108 acres), and long leaf pine-oak/hickory forest (11 acres). The site was constructed in 1995, and it was first monitored for both hydrology and vegetation in 1996.

1.2 Purpose

In order to demonstrate successful mitigation, vegetative and hydrologic monitoring will be conducted for a minimum of three years. The following report details the results of hydrologic and vegetative monitoring during 2000, the fifth year of monitoring. Included is an analysis of data on the site itself as well as local climate conditions during the growing season

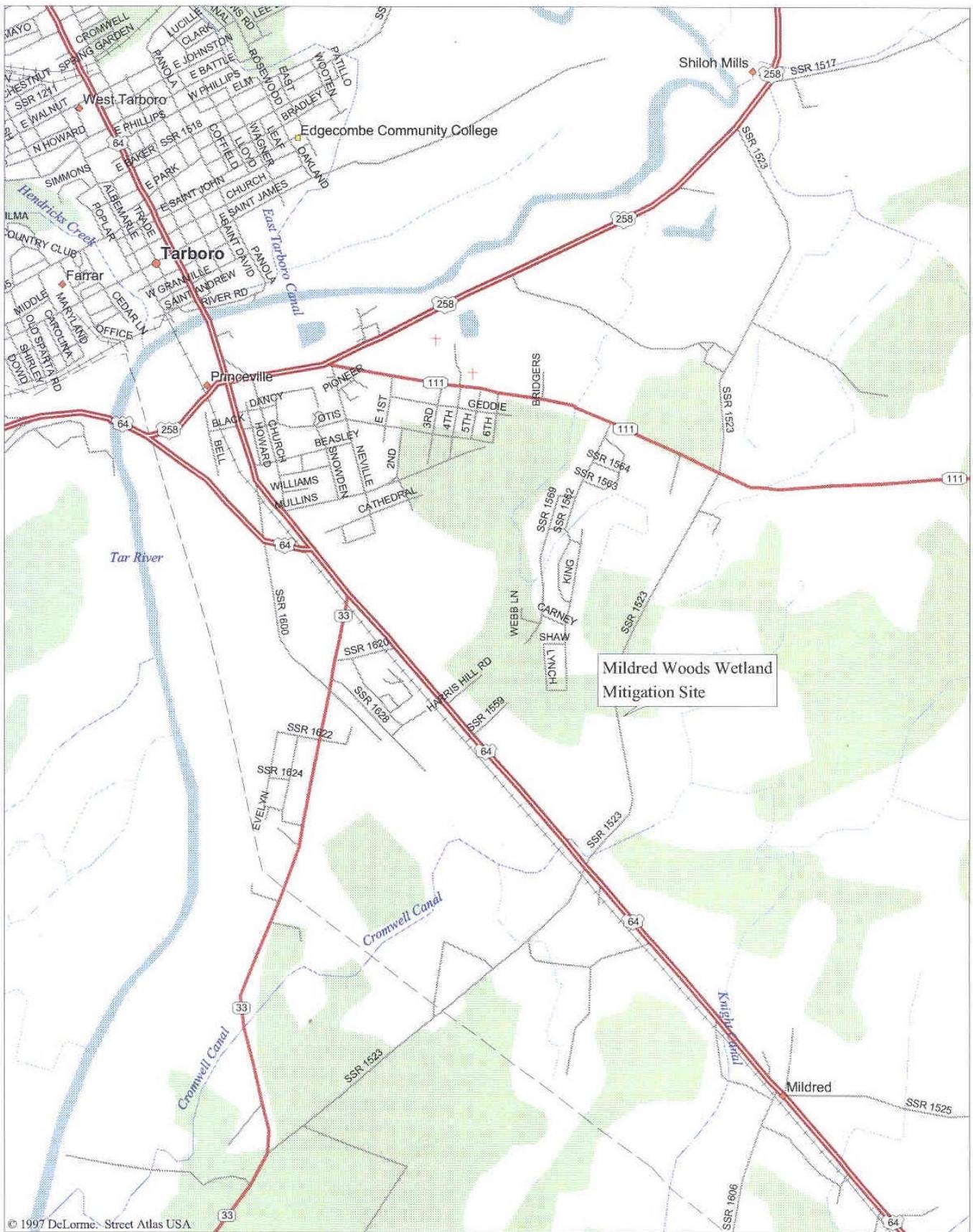


FIGURE 1 SITE LOCATION MAP

1.3 Project History

Summer 1995	Construction - Ditches plugged and filled
Sept.-Oct. 1995	KG Shearing/Piling
Jan.-Feb. 1996	Tree Planting
February 1996	Monitoring Gauges Installed
March- November 1996	Hydrologic Monitoring (1 yr.)
October 1996	Vegetation Monitoring (1 yr.)
March 1997	Additional Monitoring Gauges Installed
March- November 1997	Hydrologic Monitoring (2 yr.)
August 1997	Vegetation Monitoring (2 yr.)
March- November 1998	Hydrologic Monitoring (3 yr.)
September 1998	Vegetation Monitoring (3 yr.)
February 1999	Additional gauges installed
March- November 1999	Hydrologic Monitoring (4 yr.)
October 1999	Vegetation Monitoring (4 yr.)
March- November 2000	Hydrologic Monitoring (5 yr.)
October 2000	Vegetation Monitoring (5 yr.)

2.0 HYDROLOGY

2.1 Success Criteria

Target hydrological characteristics include saturation or inundation (within 12" of surface) for at least 12.5% of the growing season at lower landscape positions during average climatic conditions. Upper landscape reaches of wetland restoration areas may exhibit surface saturation/inundation for between 5% and 12.5% of the growing season based on gauge data. Several monitoring gauges were placed at locations where saturation is expected to be less than 5% of the growing season, in order to aid future delineation of true wetland area. Table 1 summarizes the wetland criteria expected for each monitoring gauge by showing which gauges in each section are expected to meet which criteria.

Table 1
EXPECTED WETLAND CONDITIONS

Expected % of the Growing Season with Saturated Conditions			
Section Number	< 5%	5% - 12.5%	> 12.5%
Section 1	6,7		1 – 5, 15C – 18C
Section 2	10		8, 9
Section 3		19C,21C	11 – 15
Section 4	16	17,29C	18, 20C, 26C – 28C
Section 5	27	26,1C,2C	19 - 25,3C – 5C,7C,8C
Section 6			28, 29
Section 7		30,31,32,33, 23C	22C
Section 8		34,35,36,37,38,39 31C, 32C	
Section 9			40, 25C, 30C
Section 10	41	24C	
Section 11			42, 11C-14C, 33C
Section 12		6C, 9C	43, 10C

** Success Criteria has been established for the 33 new gauges, installed prior to the 1999 growing season.

The growing season in Edgecombe County begins March 21 and ends November 10. These dates correspond to a 50% probability that air temperatures will drop to 28° F or lower after March 21 and before November 10.¹ Thus, the growing season is 233 days; optimum wetland hydrology requires 12.5%, or a consecutive 29 days. However, the site must also experience average climatic conditions for the data to be valid.

2.2 Hydrologic Description

Forty-three monitoring gauges and two rain gauges were installed on site in between 1996 and 1998 (Figure 2). As part of the site investigation, an additional 33 monitoring gauges were installed during the month of January, prior to the start of the 1999-growing season. The automatic monitoring gauges and rain gauges record depth to groundwater and rainfall. Daily readings are taken throughout the growing season.

Because Mildred Woods is a large site, it is divided into twelve “sections”. Table 2 lists the location of each section and the gauges contained in each section. Borrow Pit 1 is located on the west side of the site. Borrow Pit 2 is located on the East Side of the site.

¹ Soil Conservation Service, Soil Survey of Edgecombe County, North Carolina, 1979.

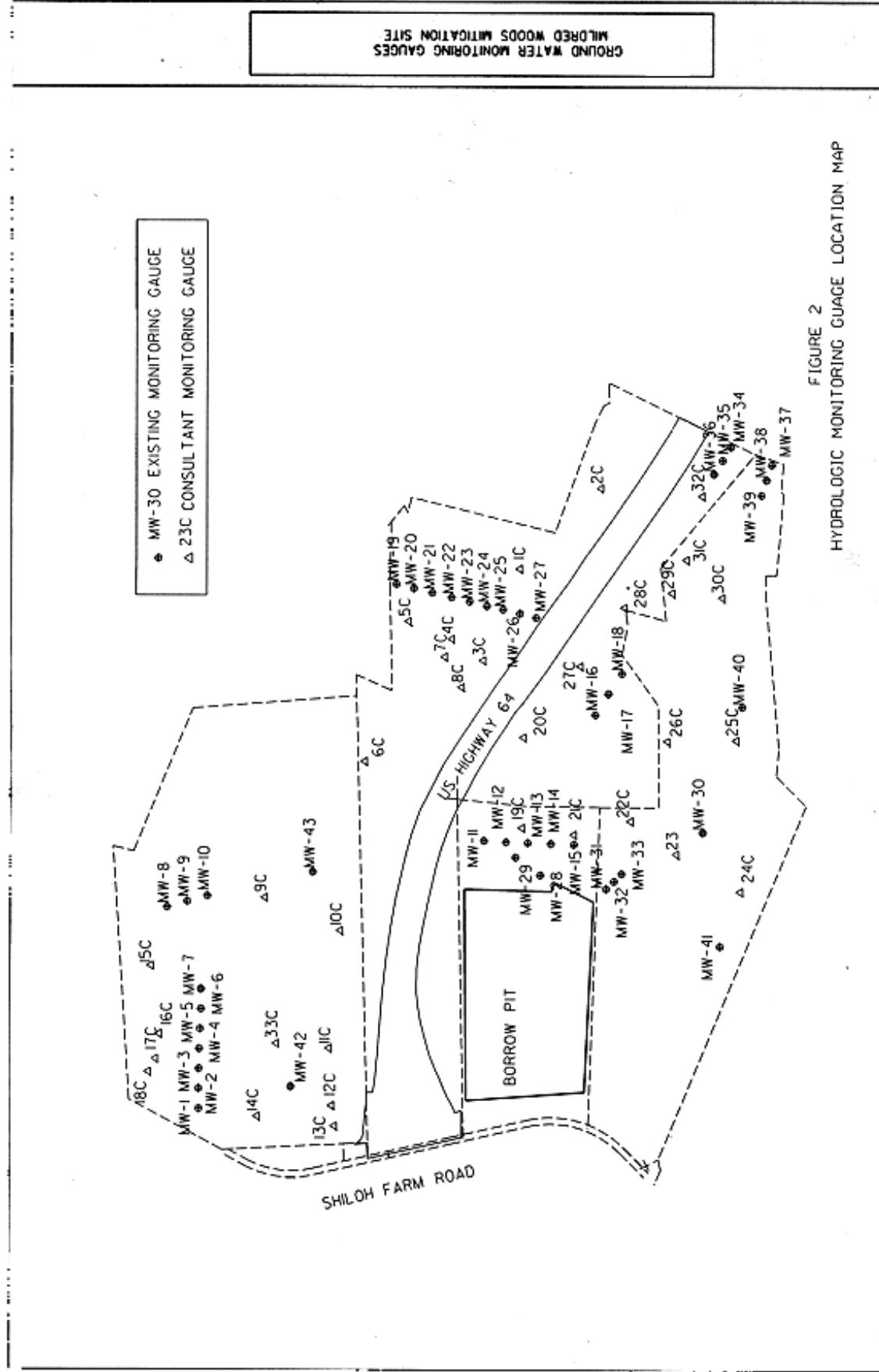
Table 2
GAUGE LOCATIONS (Sections 1-12)

Section Number	Location	Number of Gauge	Gauge Numbers	Additional Gauge Numbers
1	Northwest Corner	11	MW 1 - 7	MW 15C –18C
2	Northern Area	3	MW 8 –10	
3	Center of Mildred Woods	7	MW 11 - 15	MW 19C & 21C
4	Eastern Area	8	MW 16 - 18	MW 20C, 26C – 29C
5	Northeast Corner	16	MW 19 - 27	MW 1C – 5C, 7C, 8C
6	East of Borrow Pit 1	2	MW 28 - 29	
7	Southeast of Borrow Pit 1	6	MW 30 - 33	MW 22C & 23C
8	West of Borrow Pit 2	8	MW 34 - 39	MW 31C & 32C
9	Lower Eastern Area	3	40	MW 25C & 30C
10	South of Borrow Pit 1	1	41	MW 24C
11	Lower Northeast Corner	6	42	MW 11C –14C, & MW 33C
12	Middle Northern Area	4	43	MW 6C, 9C, 10C

** The 33 new gauges can be identified by "C" after the gauge number.

Appendix A contains a plot of the groundwater depth for each monitoring gauge during the 2000-growing season. Precipitation events, obtained from the Tarboro Climatic Center, are included on each graph as bars. Data collected by the monitoring gauges that was determined to be erroneous was omitted. On-site rain data was not used because the existing rain gauges proved unreliable. A new, more accurate rain gauge will be installed prior to the start of the 2000 growing season.

Figure 2. Hydrologic Monitoring Gauge Location Map



2.3 Results of Hydrologic Monitoring

2.3.1 Site Data

The total number of consecutive days that the groundwater was within twelve inches of the surface was determined for each gauge. This number was converted into a percentage of the 233-day growing season. The results are presented in Tables 3 to 14.

Table 3
HYDROLOGIC MONITORING RESULTS- NORTHWEST CORNER

Gauge	Expected %	<5%	5% - 8%	8% - 12.5%	> 12.5%	Actual %
MW-1	≥ 12.5	✓				1.3
MW-2	≥ 12.5				✓	20.2
MW-3	≥ 12.5				✓	20.6
MW-4	≥ 12.5				✓	23.2
MW-5	≥ 12.5				✓	20.2
MW-6	$0 \leq 5$	✓				2.6
MW-7	$0 \leq 5$	✓				0
MW-15C	≥ 12.5				✓	24.9
MW-16C	≥ 12.5				✓	22.3
MW-17C	≥ 12.5				✓	27.9
MW-18C	≥ 12.5				✓	21.9

Ten of the eleven gauges in the northwest corner met their respective expected hydrology.

Table 4
HYDROLOGIC MONITORING RESULTS- NORTHERN AREA

Gauge	Expected %	<5%	5% - 8%	8% - 12.5%	> 12.5%	Actual %
MW-8	≥ 12.5				✓	25.9
MW-9	≥ 12.5				✓	20.6
MW-10	$0 \leq 5$	✓				3.9

All of the gauges in the northern area met their respective expected hydrology.

Table 5
HYDROLOGIC MONITORING RESULTS - CENTER OF MILDRED WOODS

Gauge	Expected %	<5%	5% - 8%	8% - 12.5%	> 12.5%	Actual %
MW-11	≥ 12.5	✓				3.9
MW-12	≥ 12.5	✓				3.4
MW-13	≥ 12.5				✓	30.9
MW-14	≥ 12.5	✓				0.9
MW-15	≥ 12.5	✓				4.3
MW-19C	$5 \leq 12.5$		✓			6.0
MW-21C	≥ 12.5	✓				2.6

Only two of the seven gauges in the center section met the expected hydrology.

Table 6
HYDROLOGIC MONITORING RESULTS- EASTERN AREA

Gauge	Expected %	<5%	5% - 8%	8% - 12.5%	> 12.5%	Actual %
MW-16	$0 \leq 5$	✓				0.86
MW-17	$5 \leq 12.5$				✓	21.9
MW-18	≥ 12.5				✓	23.6
MW-20C	≥ 12.5				✓	30.9
MW-26C	≥ 12.5				✓	21.9
MW-27C	≥ 12.5		✓			6.4
MW-28C	≥ 12.5	✓				4.7
MW-29C	$5 \leq 12.5$	✓				3.9

Five of the eight gauges in the eastern area met or exceeded their respective expected hydrology.

Table 7
HYDROLOGIC MONITORING RESULTS- NORTHEAST CORNER

Gauge	Expected %	<5%	5% - 8%	8% - 12.5%	> 12.5%	Actual %
MW-19	≥ 12.5				✓	30.9
MW-20	≥ 12.5				✓	26.2
MW-21	≥ 12.5				✓	95.7
MW-22	≥ 12.5				✓	21.9
MW-23	≥ 12.5				✓	18.0
MW-24	≥ 12.5				✓	26.2
MW-25	≥ 12.5				✓	21.0
MW-26	5 to 12.5				✓	12.0
MW-27	$0 \leq 5$	✓				4.7
MW-1C	$5 \leq 12.5$				✓	28.8
MW-2C	$5 \leq 12.5$	✓				3.9
MW-3C	≥ 12.5				✓	26.6
MW-4C	≥ 12.5				✓	22.7
MW-5C	≥ 12.5				✓	21.0
MW-7C	≥ 12.5				✓	24.9
MW-8C	≥ 12.5				✓	43.8

Fifteen of the sixteen gauges in the northeast corner met or exceeded the hydrology expected for the area.

Table 8
HYDROLOGIC MONITORING RESULTS- EAST OF BORROW PIT 1

Gauge	Expected %	<5%	5% - 8%	8% - 12.5%	> 12.5%	Actual %
MW-28	≥ 12.5				✓	23.6
MW-29	≥ 12.5	✓				5.6

One of the two gauges east of borrow pit 1 met the expected hydrology.

Table 9
HYDROLOGIC MONITORING RESULTS- SOUTHEAST OF BORROW PIT 1

Gauge	Expected %	<5%	5% - 8%	8% - 12.5%	> 12.5%	Actual %
MW-30	5 ≤ 12.5		✓			5.6
MW-31	5 ≤ 12.5			✓		8.2
MW-32	5 ≤ 12.5				✓	18.5
MW-33	5 ≤ 12.5				✓	17.2
MW-22C	≥ 12.5				✓	21.0
MW-23C	≥ 12.5				✓	22.3

All six gauges southeast of borrow pit 1 met expected hydrology, indicating saturation between 5% and 12.5% of the growing season.

Table 10
HYDROLOGIC MONITORING RESULTS - WEST OF BORROW PIT 2

Gauge	Expected %	<5%	5% - 8%	8% - 12.5%	> 12.5%	Actual %
MW-34	5 ≤ 12.5	✓				0
MW-35	5 ≤ 12.5	✓				2.1
MW-36	5 ≤ 12.5	✓				4.3
MW-37	5 ≤ 12.5		✓			6.4
MW-38	5 ≤ 12.5				✓	15.5
MW-39	5 ≤ 12.5				✓	15.5
MW-31C	≥ 12.5				✓	16.7
MW-32C	5 ≤ 12.5	✓				3.4

Four of the eight gauges west of borrow pit 2 met or exceeded the expected hydrology for the area.

Table 11
HYDROLOGIC MONITORING RESULTS - LOWER EASTERN AREA

Gauge	Expected %	<5%	5% - 8%	8% - 12.5%	> 12.5%	Actual %
MW-40	≥ 12.5				✓	21.4
MW-25C	≥ 12.5				✓	17.2
MW-30C	5 ≤ 12.5			✓		8.6

Two of the three gauges in the lower eastern area met its expected hydrology.

Table 12
HYDROLOGIC MONITORING RESULTS - SOUTH OF BORROW PIT 1

Gauge	Expected %	<5%	5% - 8%	8% - 12.5%	> 12.5%	Actual %
MW-41	0 ≤ 5				✓	23.2
MW-24C	5 ≤ 12.5	✓				1.3

One of the two gauges south of borrow pit 1 greatly exceeded its expected hydrology, which was to show saturation for less than 5% of the growing season.

Table 13
HYDROLOGIC MONITORING RESULTS - LOWER NORTHEAST CORNER

Gauge	Expected %	<5%	5% - 8%	8% - 12.5%	> 12.5%	Actual %
MW-42	≥ 12.5	✓				4.7
MW-11C	≥ 12.5				✓	25.3
MW-12C	≥ 12.5				✓	20.6
MW-13C	≥ 12.5				✓	20.2
MW-14C	≥ 12.5		✓			6.9
MW-33C	≥ 12.5				✓	12.5

Four of the six gauges in the lower northeast corner met or exceeded the expected hydrology for the area.

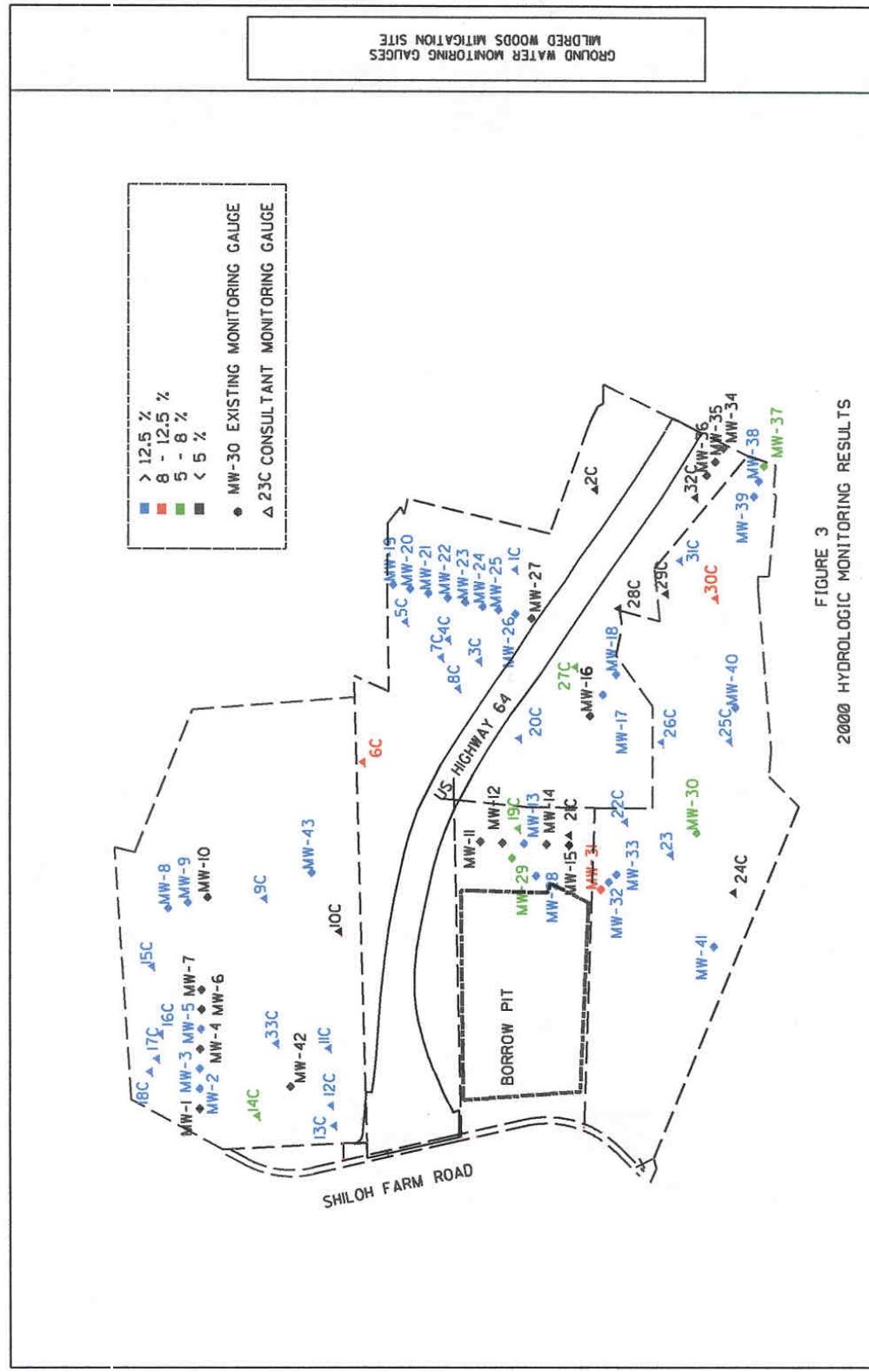
Table 14
HYDROLOGIC MONITORING RESULTS -MIDDLE NORTHERN AREA

Gauge	Expected %	<5%	5% - 8%	8% - 12.5%	> 12.5%	Actual %
MW-43	≥ 12.5				✓	24.9
MW-6C	5 ≤ 12.5		✓			8.6
MW-9C	5 ≤ 12.5				✓	21.0
MW-10C	≥ 12.5	✓				2.6

Three of the four gauges in the middle northern area met or exceeded the expected hydrology for the year.

Figure 3 is a graphical representation of the 2000 hydrologic results.

Figure 3. Hydrologic Monitoring Results 2000



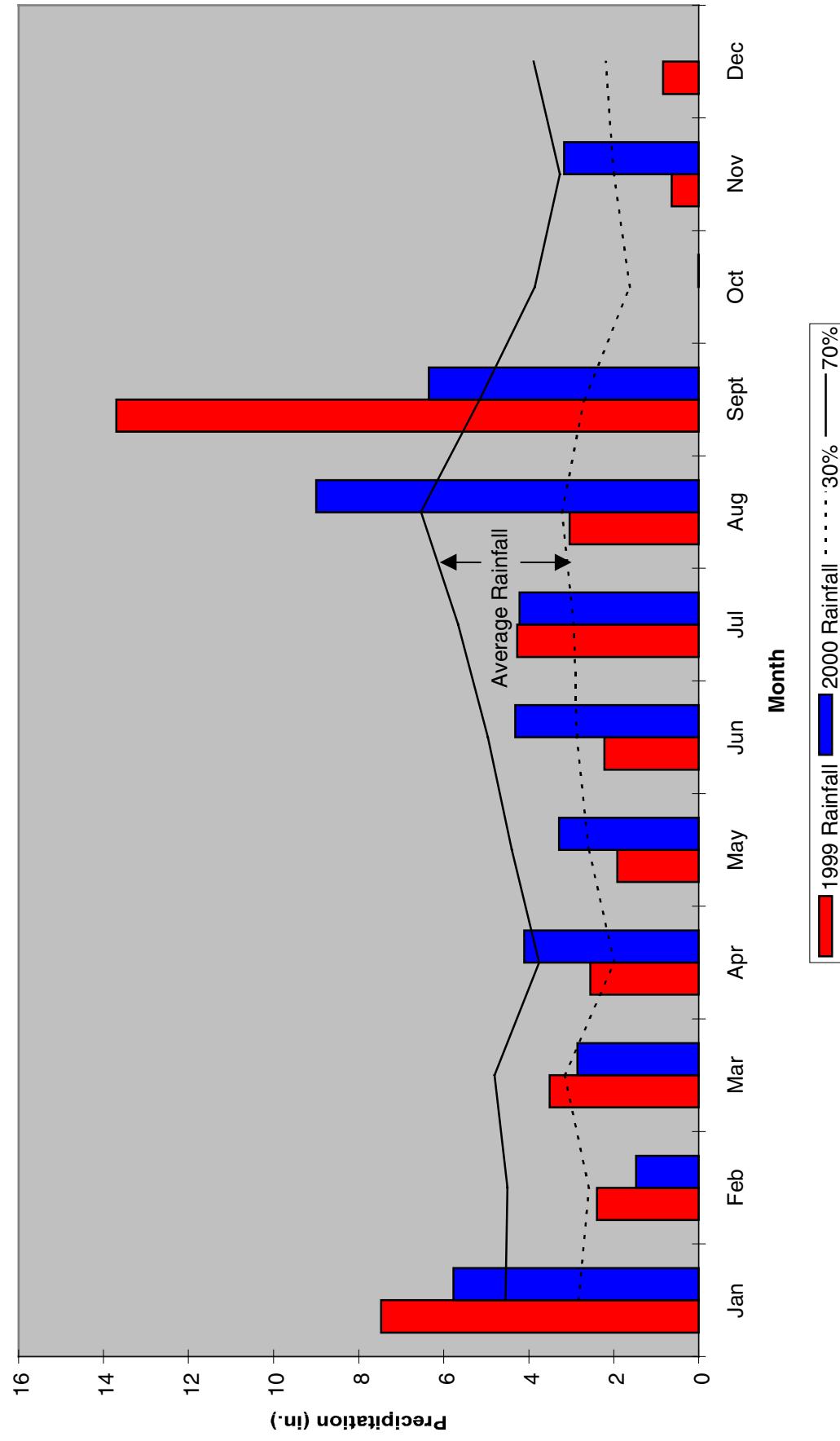
**FIGURE 3
2000 HYDROLOGIC MONITORING RESULTS**

2.3.2 *Climatic Data*

Figure 4 is a comparison of 2000 monthly rainfall to historical precipitation for the area. The two lines represent the 30th and 70th percentiles of monthly precipitation for Tarboro, NC, located in Edgecombe County. The bars are monthly rainfall totals for portions of 1999 and 2000. The historical data was collected by the National Climatic Data Center; the State Climate Office of North Carolina provided the recent rainfall data. Because of data availability, the 2000 data encompasses precipitation totals through November. January, April, August, and September of 2000 experienced rainfall totals that were higher than normal. October 2000 was extremely dry.

Figure 3. 30-70 Percentile Graph

Mildred Woods 30-70 Percentile Graph
Tarboro, NC



2.4 Conclusions

Of the 76 gauges currently on the site, 53 gauges either met or exceeded their respective hydrologic expectations for the season. Most of the gauges that did not meet the hydrologic expectations are immediately east of borrow pit 1 and west of borrow pit 2.

In the past five years, the site has shown great hydrologic improvement.

3.0 VEGETATION: MILDRED WOODS MITIGATION SITE (YEAR 5 OF 3)

3.1 Success Criteria

Success Criteria states that there must be a minimum mean density of 320 trees per acre of approved target species surviving for at least three years. Minimum of 6 hardwood species with no more than 20% of any one species and up to 10% of site species may be comprised of softwood species.

3.2 Description of Planted Areas

The following plant communities were planted in the Wetland Restoration Area:

Zone 1: Swamp Forest (approximately 37 acres)

Nyssa aquatica, Water Tupelo
Taxodium distichum, Baldcypress
Fraxinus pennsylvanica, Green Ash
Quercus laurifolia, Laurel Oak
Nyssa sylvatica var. biflora, Swamp Tupelo
Fraxinus aquatica, Water Ash
Carya aquatica, Water Hickory
Platanus occidentalis, American Sycamore
Quercus lyrata, Overcup Oak

Zone 2: Wet Hardwood Forest (approximately 214 acres)

Fraxinus pennsylvanica, Green Ash
Quercus falcata var. pagodaefolia, Cherrybark Oak
Quercus michauxii, Swamp Chestnut Oak
Quercus phellos, Willow Oak
Quercus nigra, Water Oak
Liriodendron tulipifera, Tulip Poplar
Quercus laurifolia, Laurel Oak
Ulmus americana, American Elm
Quercus falcata, Swamp Red Oak

Zone 3: Dry-Mesic Oak/Hickory Forest (approx. 108 acres)

Quercus alba, White Oak
Quercus falcata, Swamp Red Oak
Carya tomentosa, Mockernut Hickory
Carya glabra, Pignut Hickory
Quercus stellata, Post Oak
Quercus nigra, Water Oak

Zone 4: Long-Leaf Pine-Oak/Hickory (approximately 11 acres)

Pinus palustris, Longleaf Pine
Quercus marilandica, Blackjack Oak
Quercus velutina, Black Oak
Quercus stellata, Post Oak
Carya tomentosa, Mockernut Hickory
Carya glabra, Pignut Hickory

Zone 5: Atlantic White Cedar Test Area (approximately 2 acres)

Chamaecyparis thyoides, American White Cedar

3.3 Results of Vegetation Monitoring

Plot #	Overecup Oak	Green Ash	Tulip Poplar	Cherrybark Oak	Sw. Chestnut Oak	Willow Oak	Water Oak	Laurel Oak	Swamp Red Oak	Hickory	Bald Cypress	Black Gum	Sycamore	Tupelo Gum	Southern Red Oak	White Oak	Post Oak	Total (4 year)	Total (at planting)	Density (Tree/Acre)
2	5	4	1															10	27	252
3	1	1	9	4	2					1								18	23	532
4	1	2	11	2		1												17	27	428
5	2	1	5	12	1	2					3							26	31	570
6	4	11	7	6														28	31	614
7		1					4	3	1	5								14	22	433
8	6					1					11	3	1	4				26	28	631
9	2	4	15		3													24	29	563
10	1	1			1	11				5		1						30	29	703
16	2	9			3				3	2		1						17	22	525
17	1	9	15		1	1					1							28	28	680
18	2					1						7						11	21	356
20																		0	21	0
21	1	5	4	1														11	21	356
22	5	4	3		3	2												17	21	550
23		10	4	8	19		7	1									49	49	680	
24		7	1	7													15	26	392	
25		5	7	7													19	26	497	
26	3	3	2	3													11	28	267	
27		1										6	7	4	21	26	549			

AVERAGE DENSITY

489

To determine tree density, 50' x 50' plots are installed immediately following planting. The actual number of planted trees which occur within the plot are counted. This number is equated to the number within each plot, which represents 680 trees per acre (average). The survival monitoring number is compared to the planted number to obtain survival percentage. This percentage is applied to the 680 trees per acre to obtain an estimated tree per acre for the site. (Density = monitoring count / planted trees x 680)

Site Notes: Other species noted: sweetgum, trumpet creeper, broomsedge, juncus, ragweed, cyperus, longleaf pine, dog fennel, swamp cotton, bermuda grass, red maple, switchgrass, foxtail, wax myrtle, holly. Red cedar, sicklepod, lespedeza, sycamore, reed, blackberry, grapevine, magnolia, dead poplar, water oak, goldenrod, black willow, morning glory and pine. Surface water in plots 8, 18, 20, 21, 24 and 26. Plots 1, 11-15 and 28 have not been monitored because the plot locations are in existing woods. Plot 20 was monitored this year. No trees were found due to heavy competition. Plot 19 was not monitored because of heavy competition. It was noted that certain areas within the site consisted of heavy natural regeneration of sweetgum and red maple. Overall however the mitigation site is performing well vegetatively.

3.4 Conclusions

Of the 593 acres of this site, approximately 372 involved tree planting. There were 20 plots established throughout the planting areas, encompassing all plant communities. The vegetation monitoring of the planted area revealed the average density to be 489 trees per acre, which is well above the 320 trees per acre required by the minimum success criteria.

Based on the vegetative success of the site for the past five years, NCDOT recommends annual vegetative monitoring discontinue.

4.0 OVERALL CONCLUSIONS / RECOMMENDATIONS

Monitoring of the Mildred Woods Mitigation Site yielded the following:

- Hydrologic monitoring indicated that of the 76 gauges currently on site, 53 gauges either met or exceeded their respective hydrologic expectations.
- Hydrologic monitoring indicated that gauges located in the oriented east of borrow pit 1 and west of borrow pit 2 are where the majority of the gauges not meeting their expected hydrology for 2000 can be found.
- It can be seen from previous data that gauges meeting their expected hydrology in years past are continuing to meet their expected hydrology.
- The vegetation data collected during year five revealed the average density to be 489 trees per acre, which is well above the 320 trees per acre required by the minimum success criteria.
- On a plot by plot evaluation, only Plot 2 and Plot 20 had less than the required 320 trees per acre after five years of monitoring.

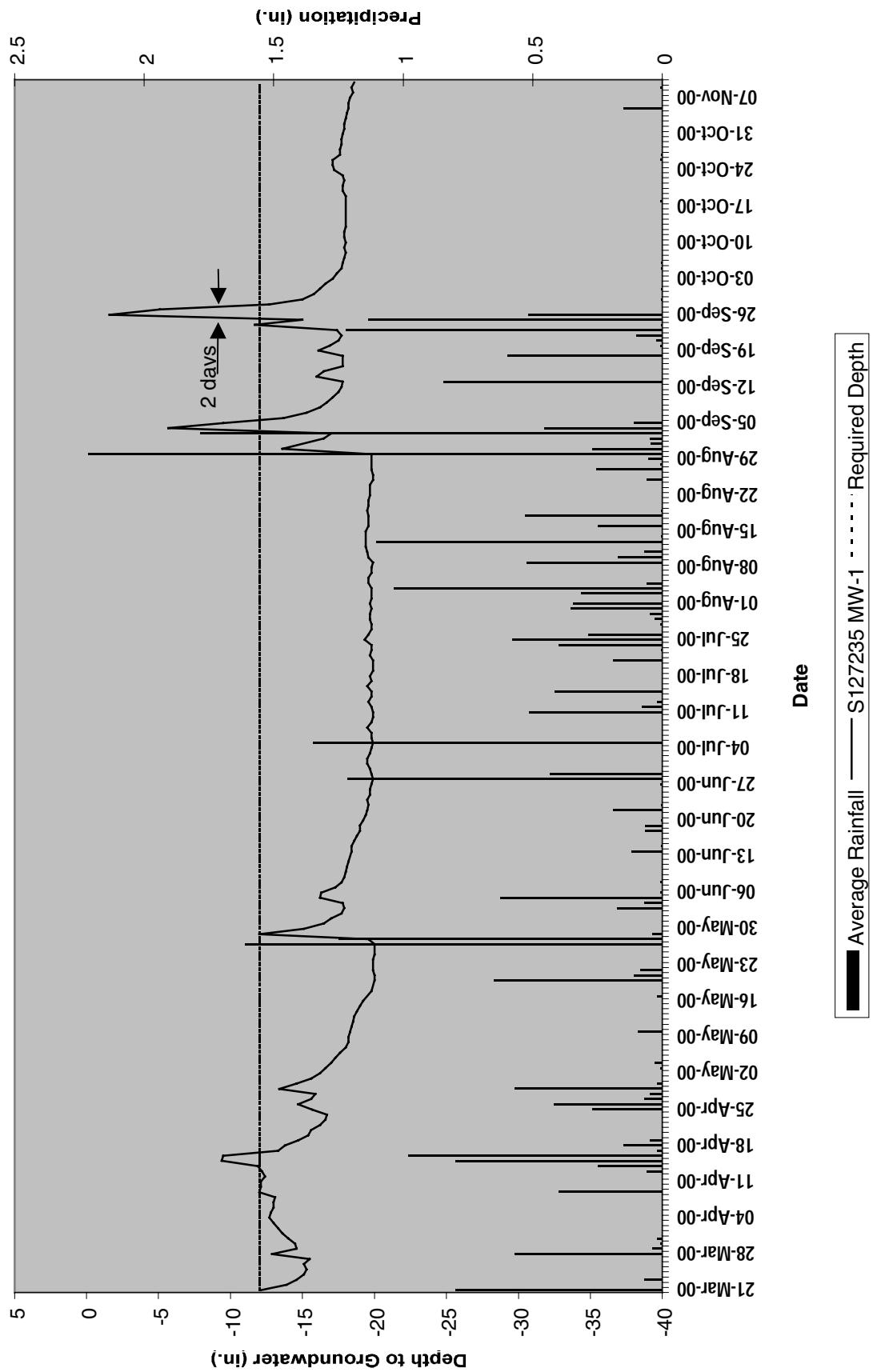
Because of continued hydrological improvement and the proposed site modifications scheduled for the Mildred Woods Mitigation Site, NCDOT intends to:

- The modifications, which will be done by Division 4 forces, are expected to be completed by May 2001. Additional surveys have to be done prior to the purchase of right of way.
- Continue annual monitoring of site hydrology through the growing season (March 21 to November 10).
- Based on the vegetative success of the site for the past five years, NCDOT recommends annual vegetative monitoring discontinue.
- Monitor the vegetation in order to evaluate the effects of the site modifications once they have been implemented.

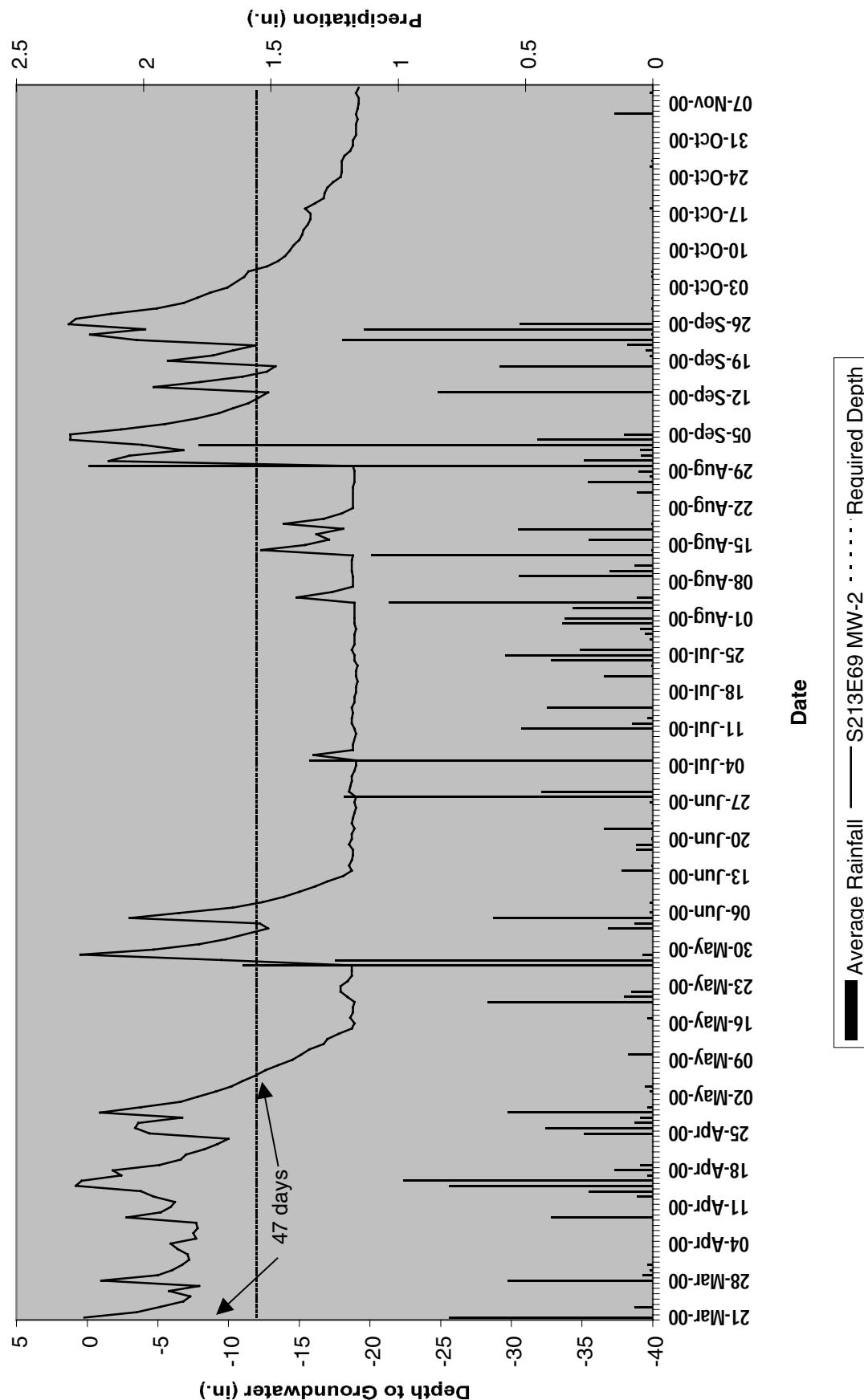
APPENDIX A

DEPTH TO GROUNDWATER PLOTS

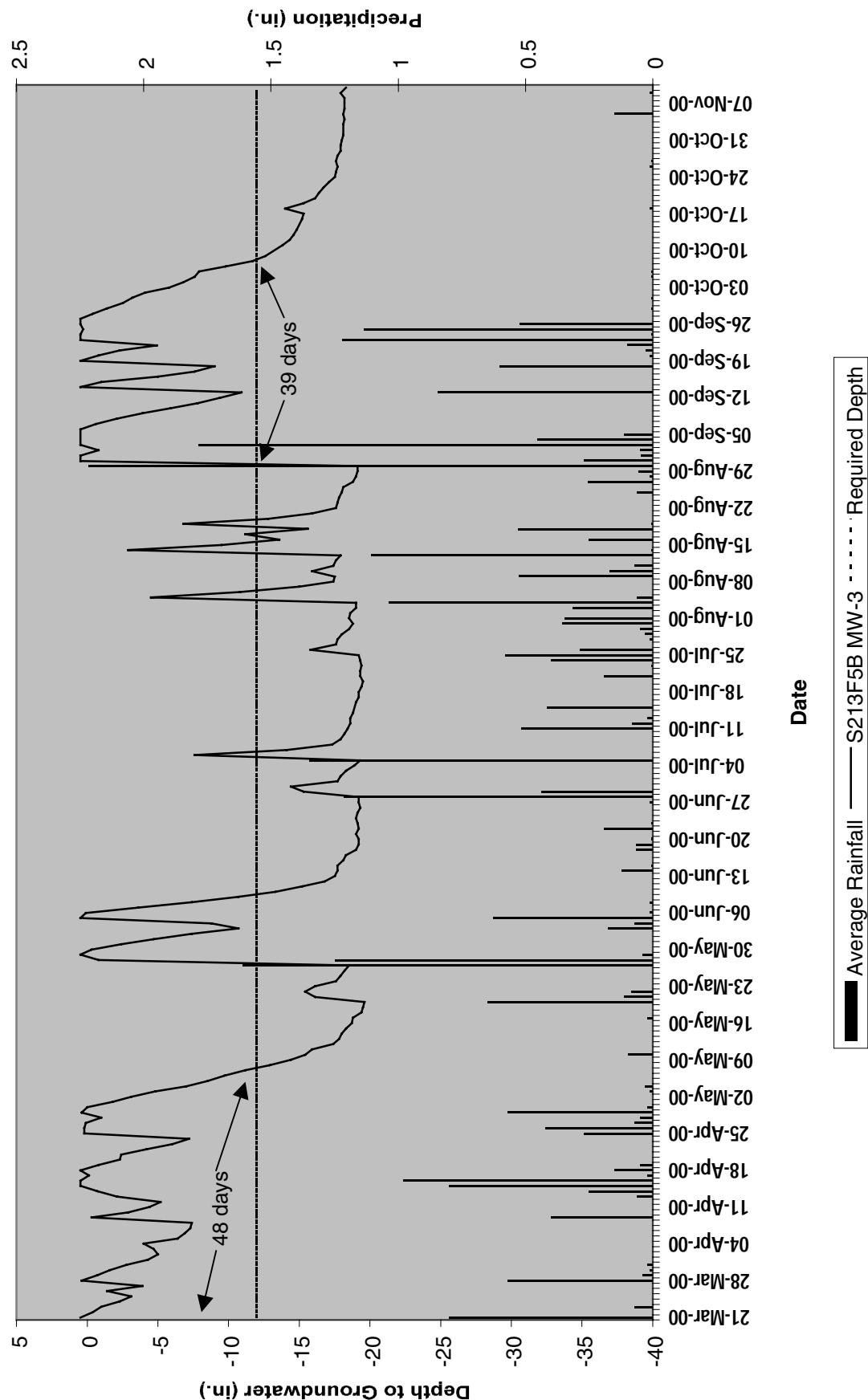
Mildred Woods MW-1



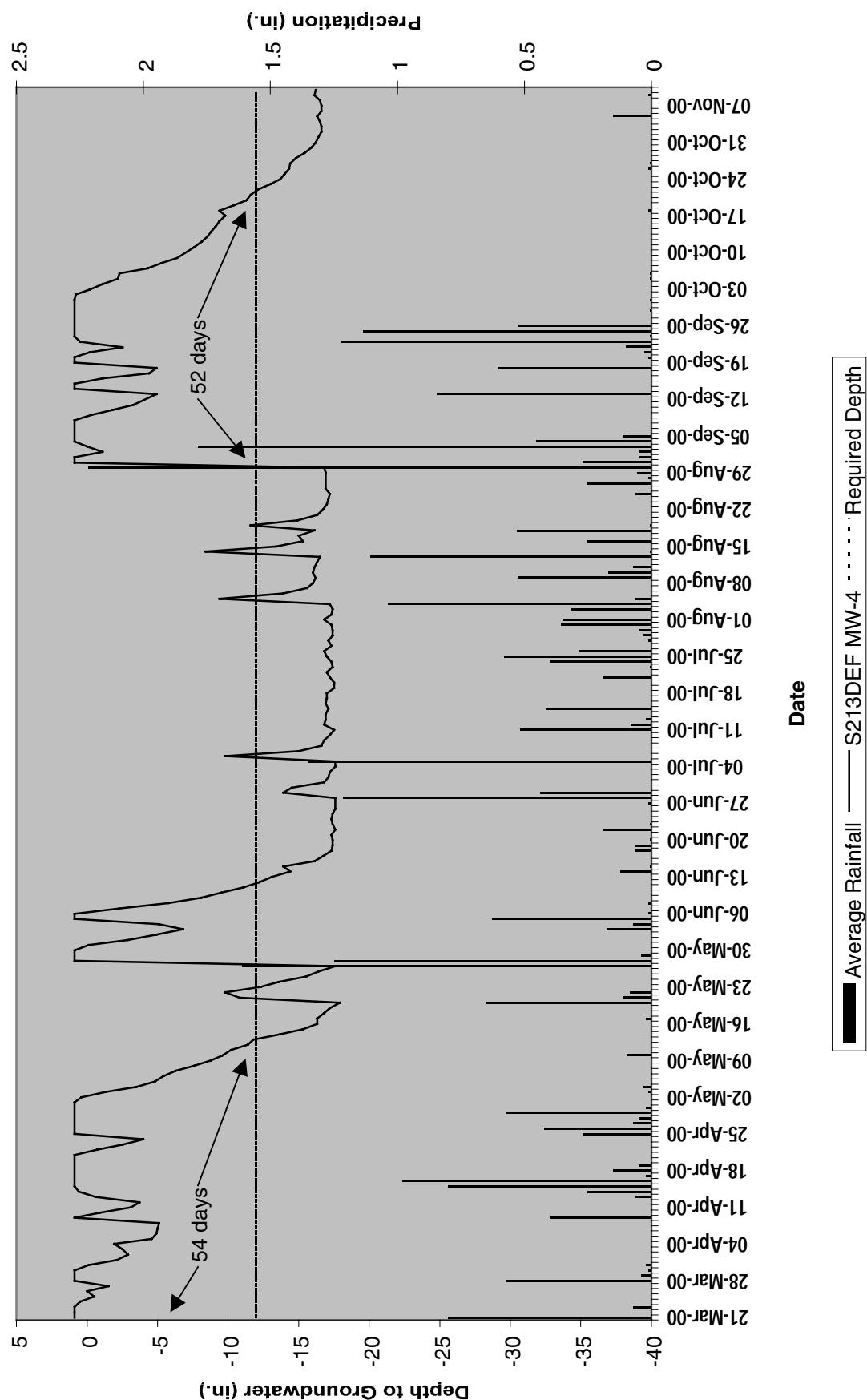
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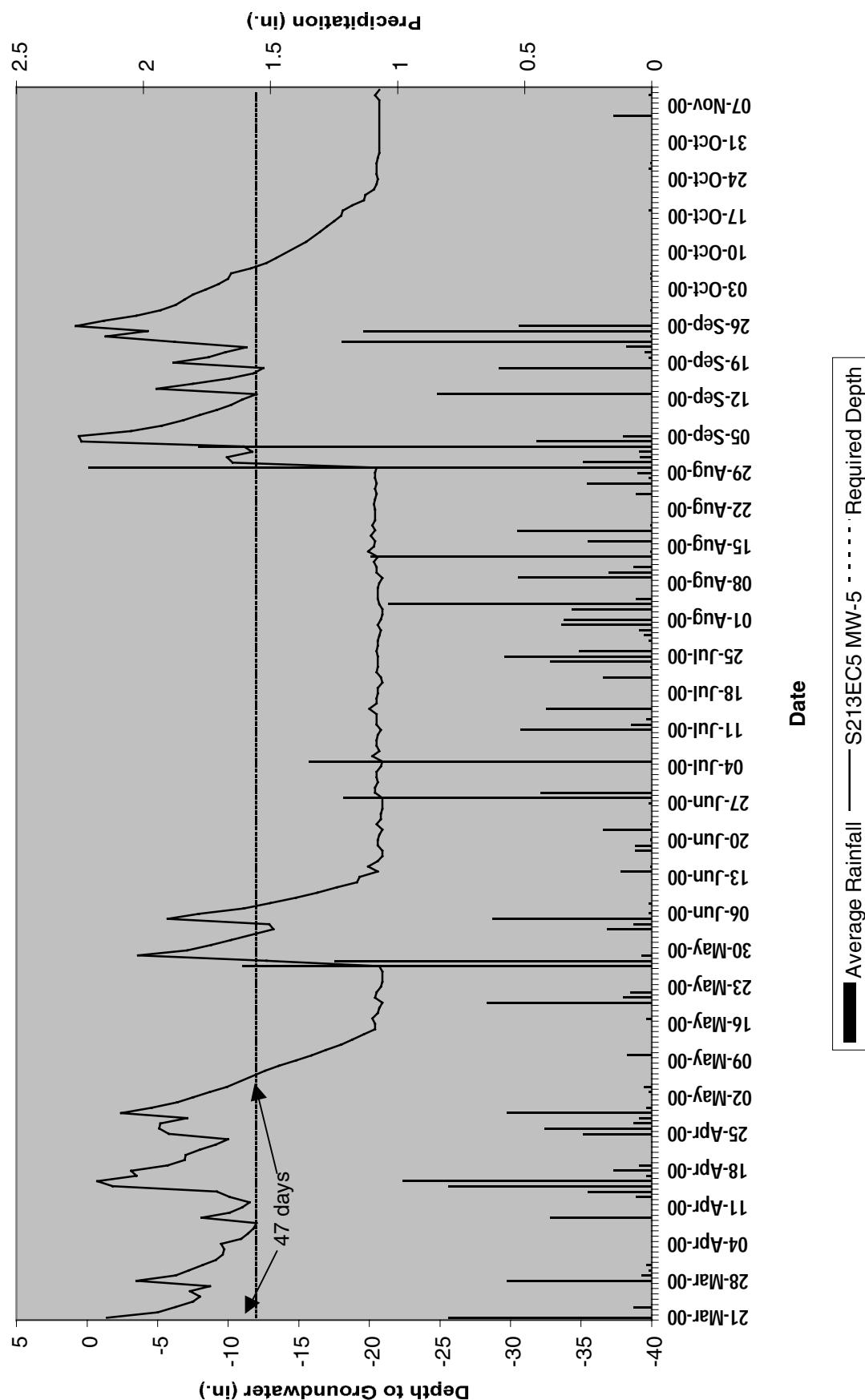
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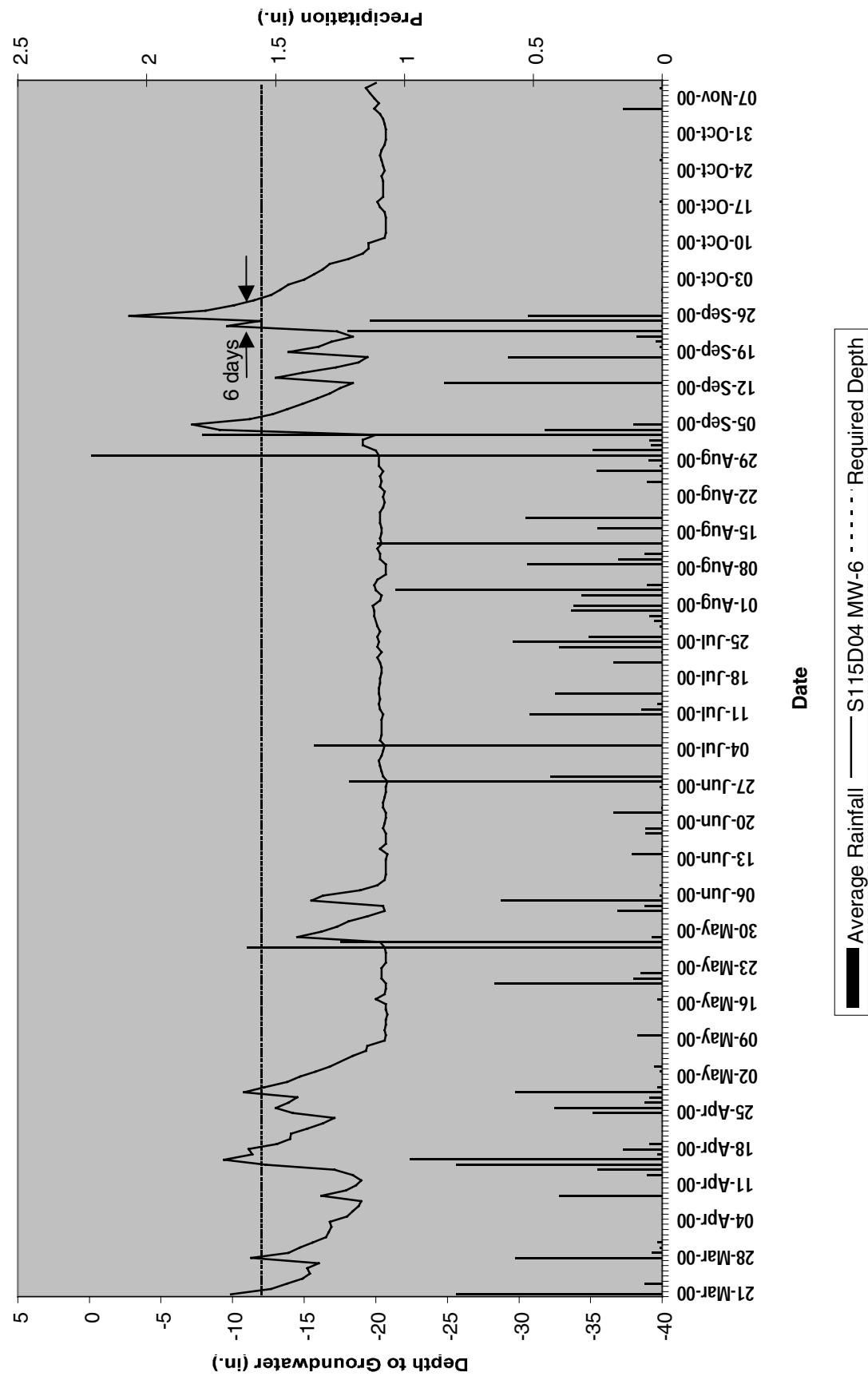
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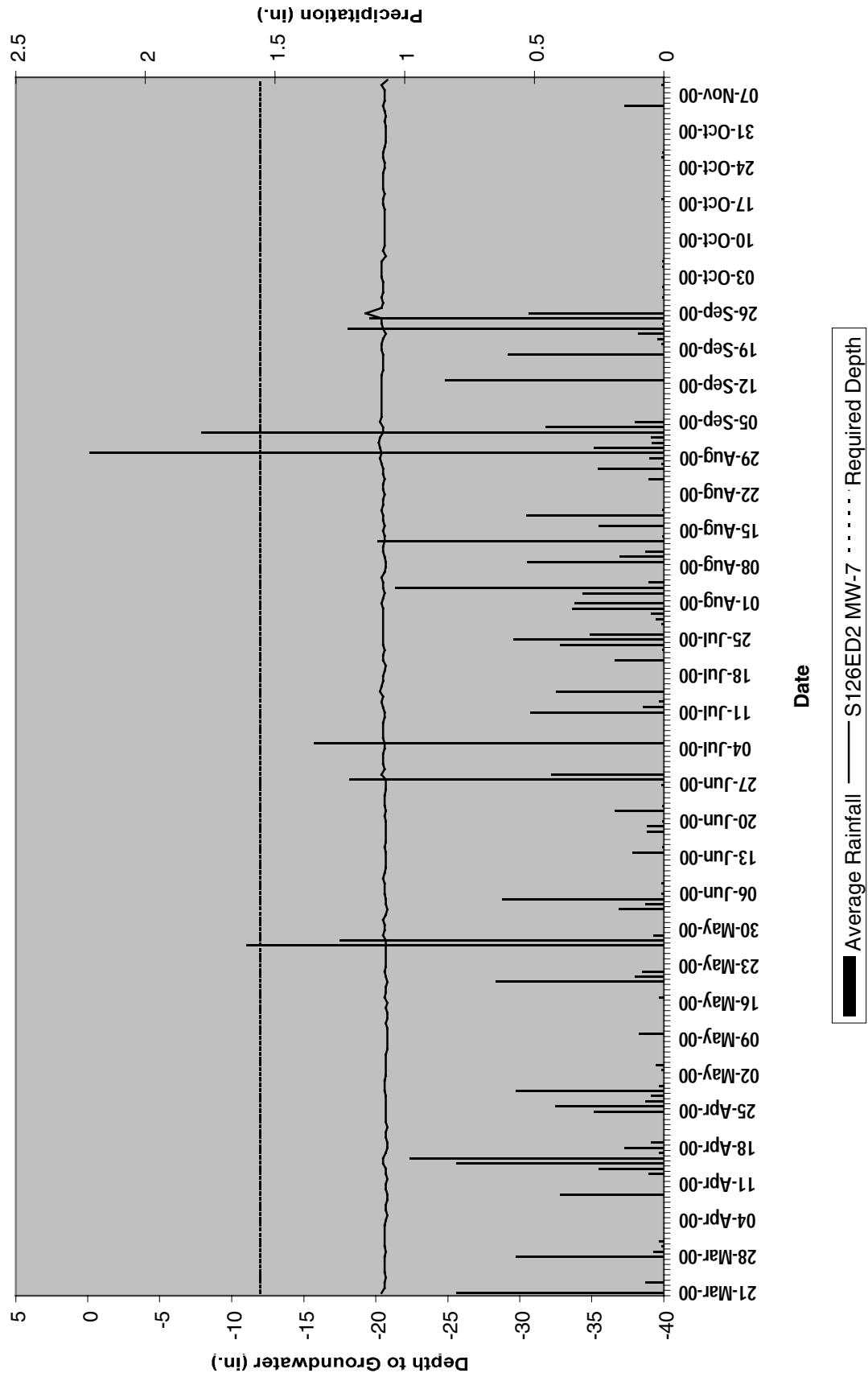
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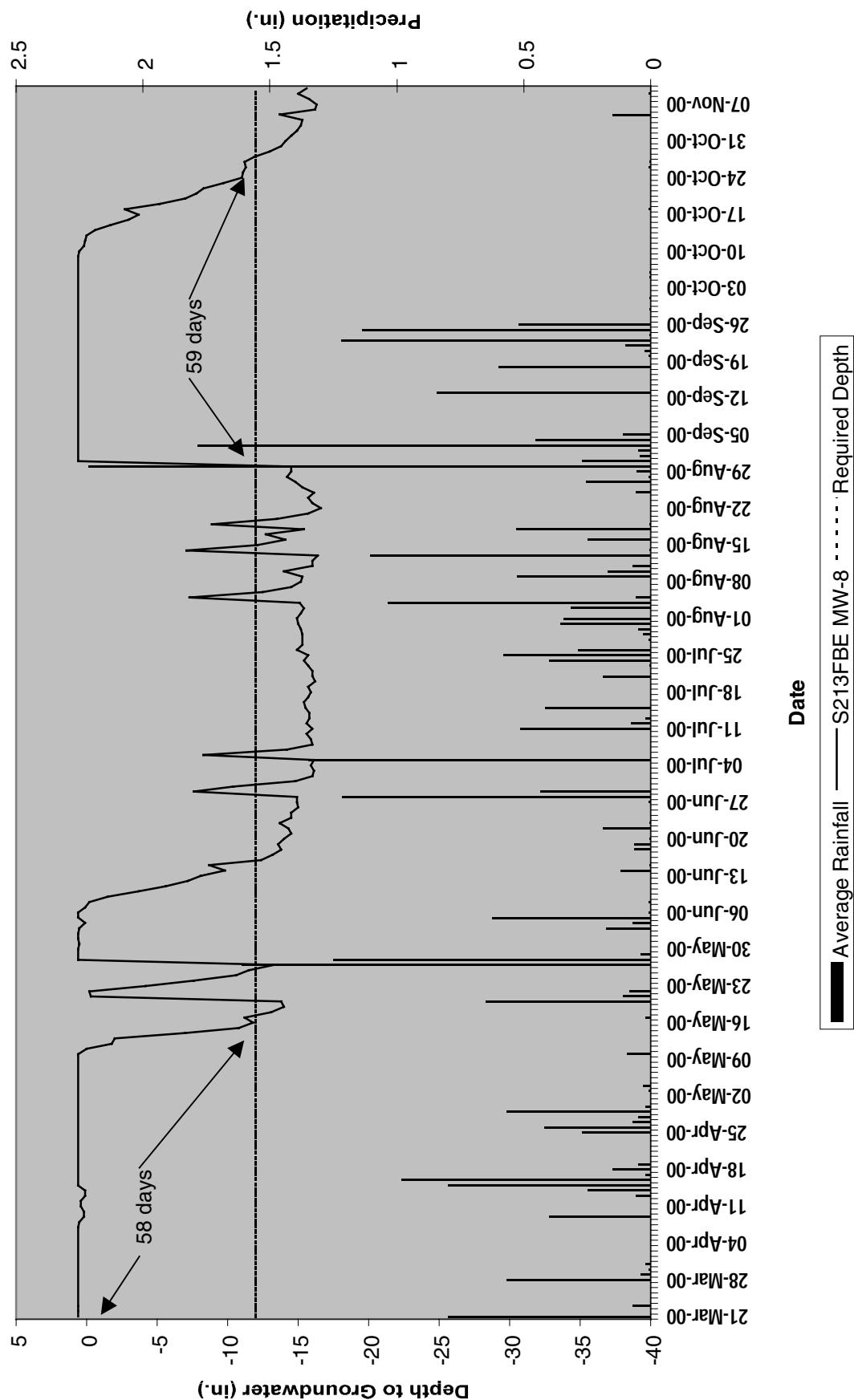
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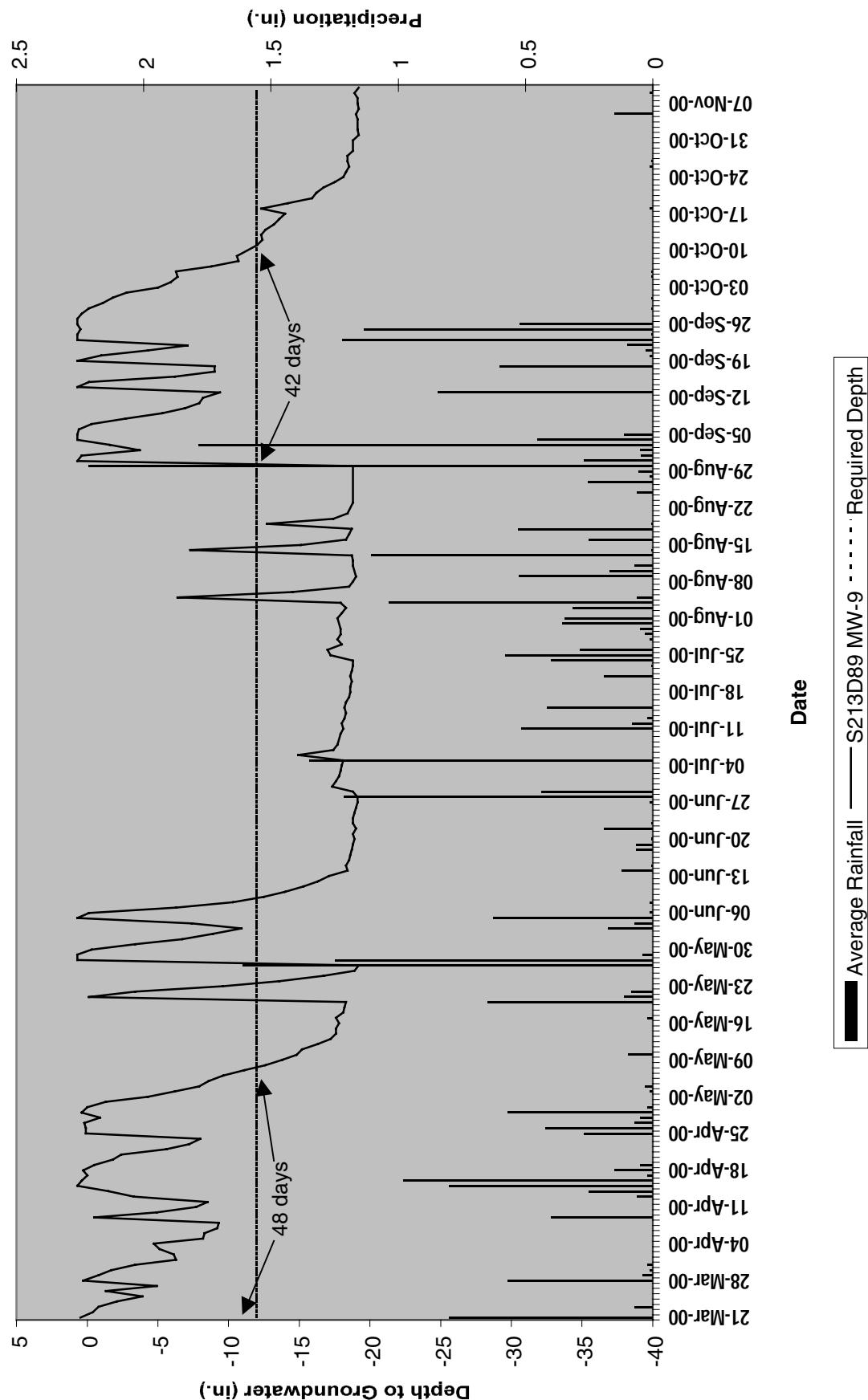
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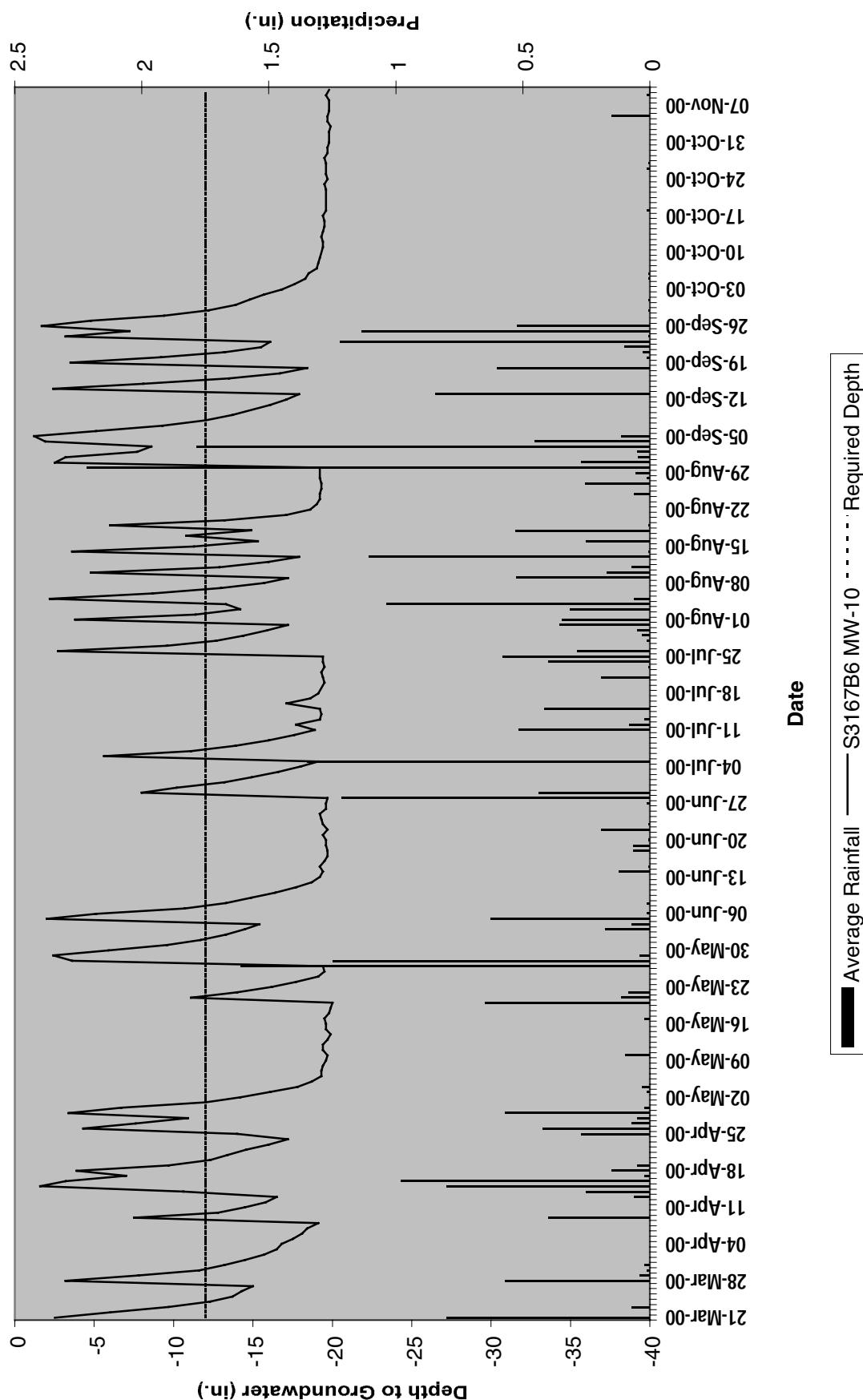
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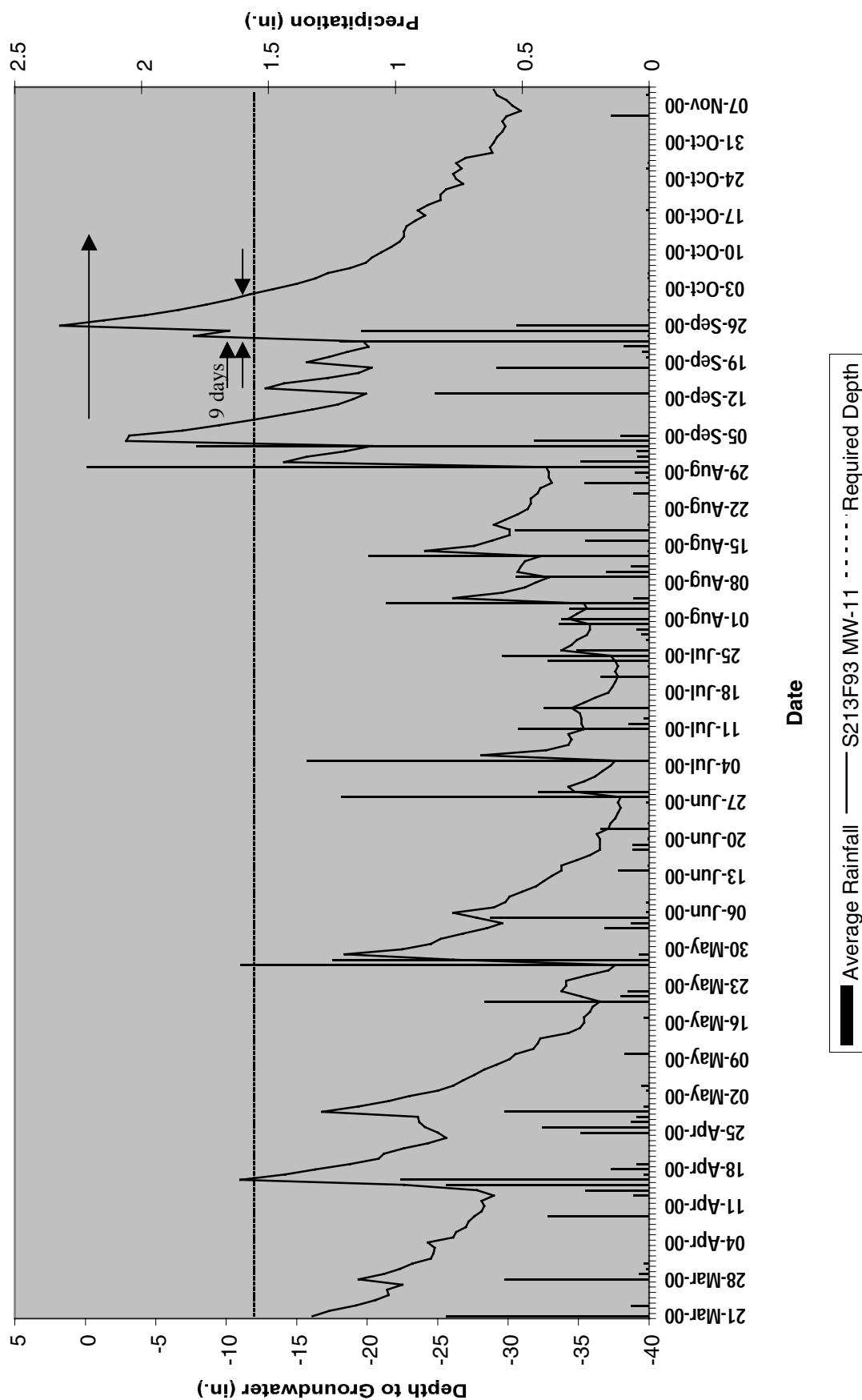
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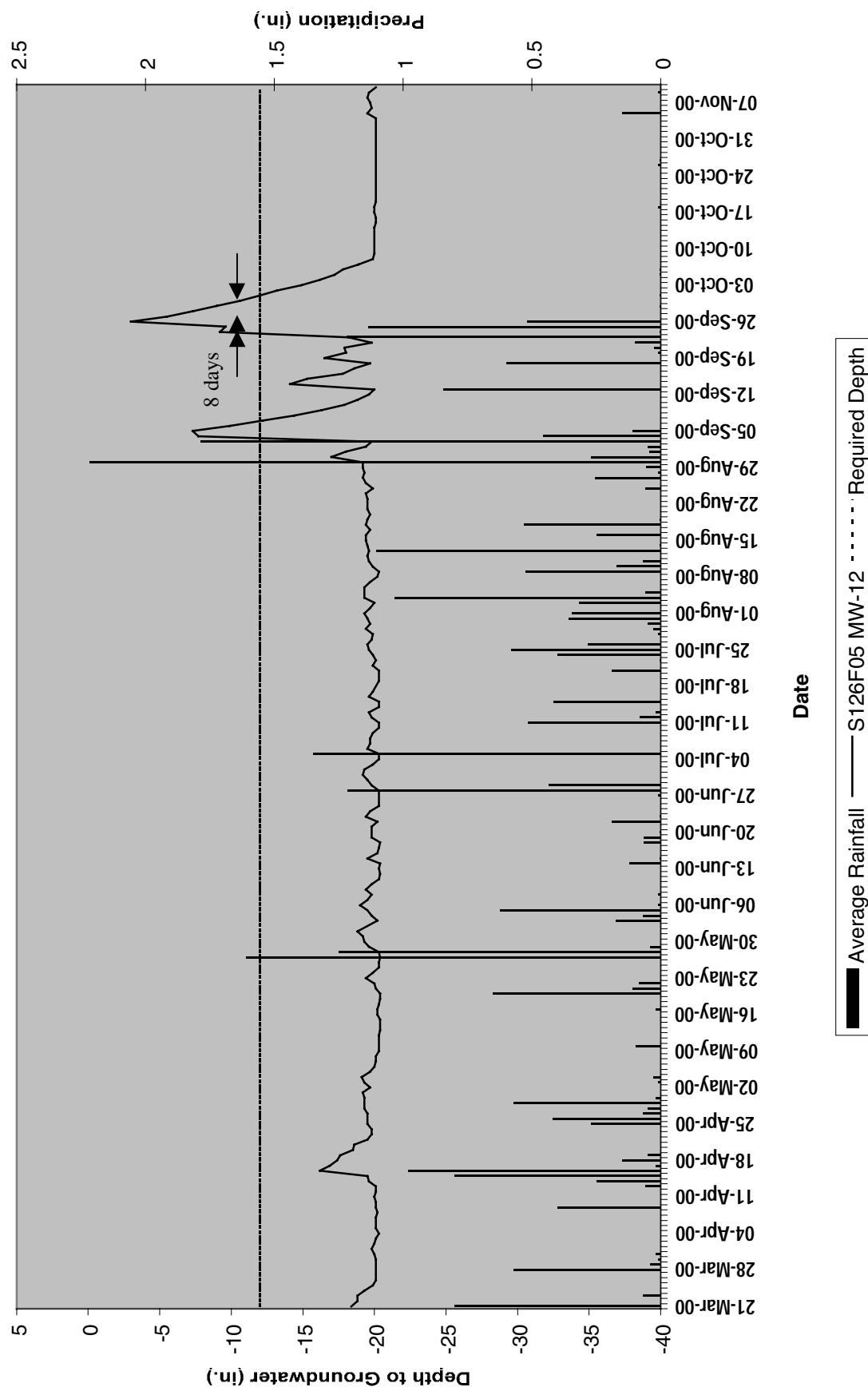
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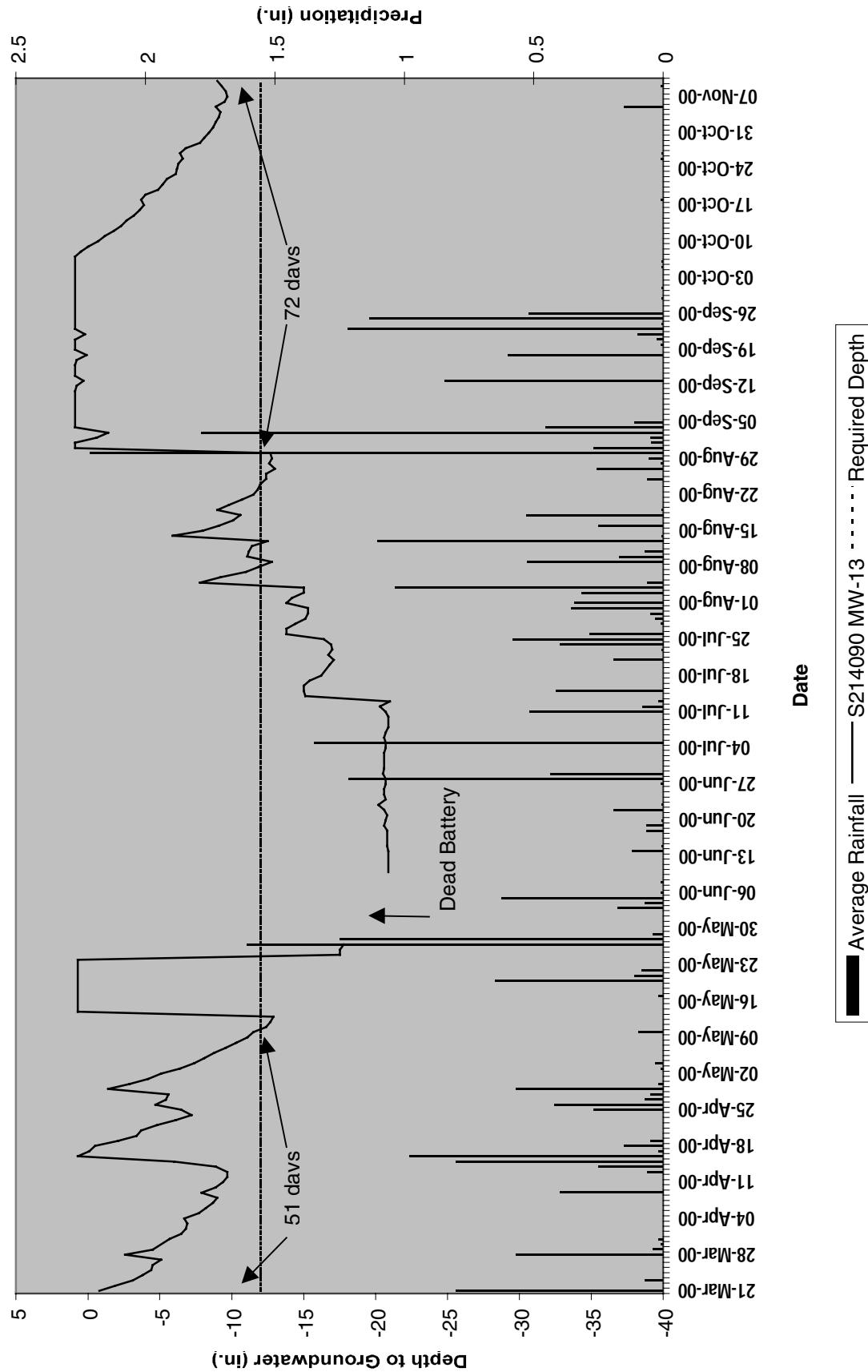
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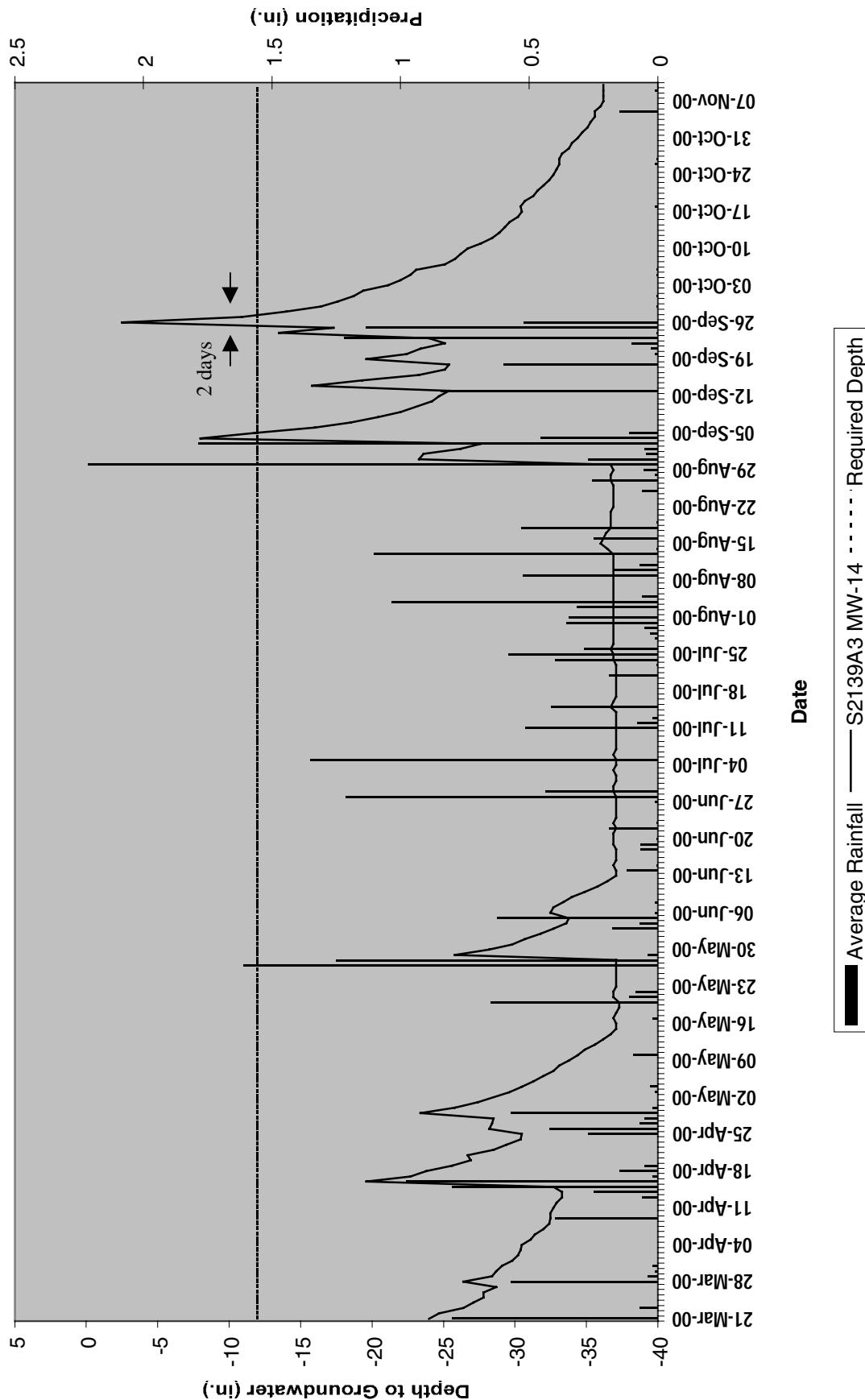
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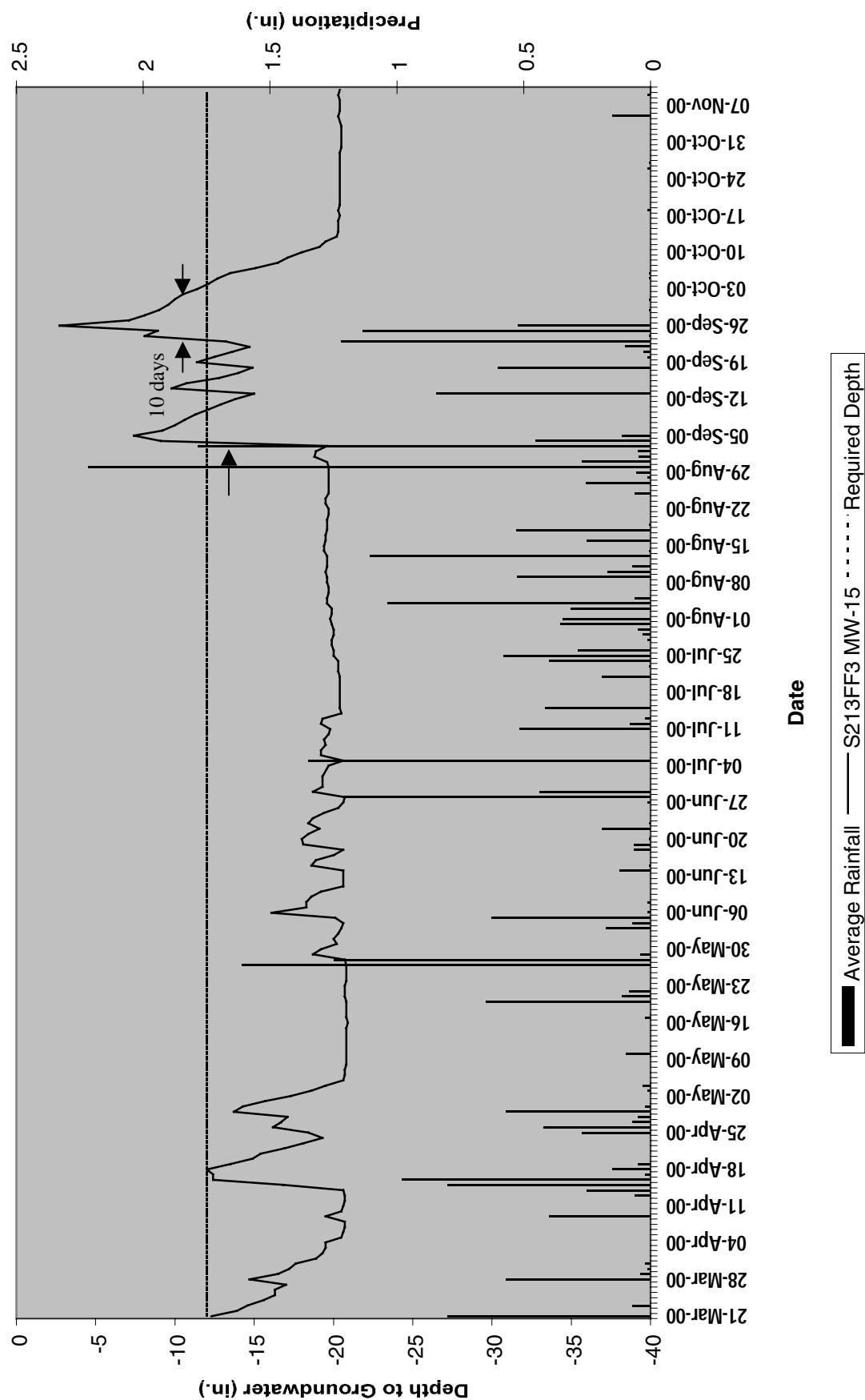
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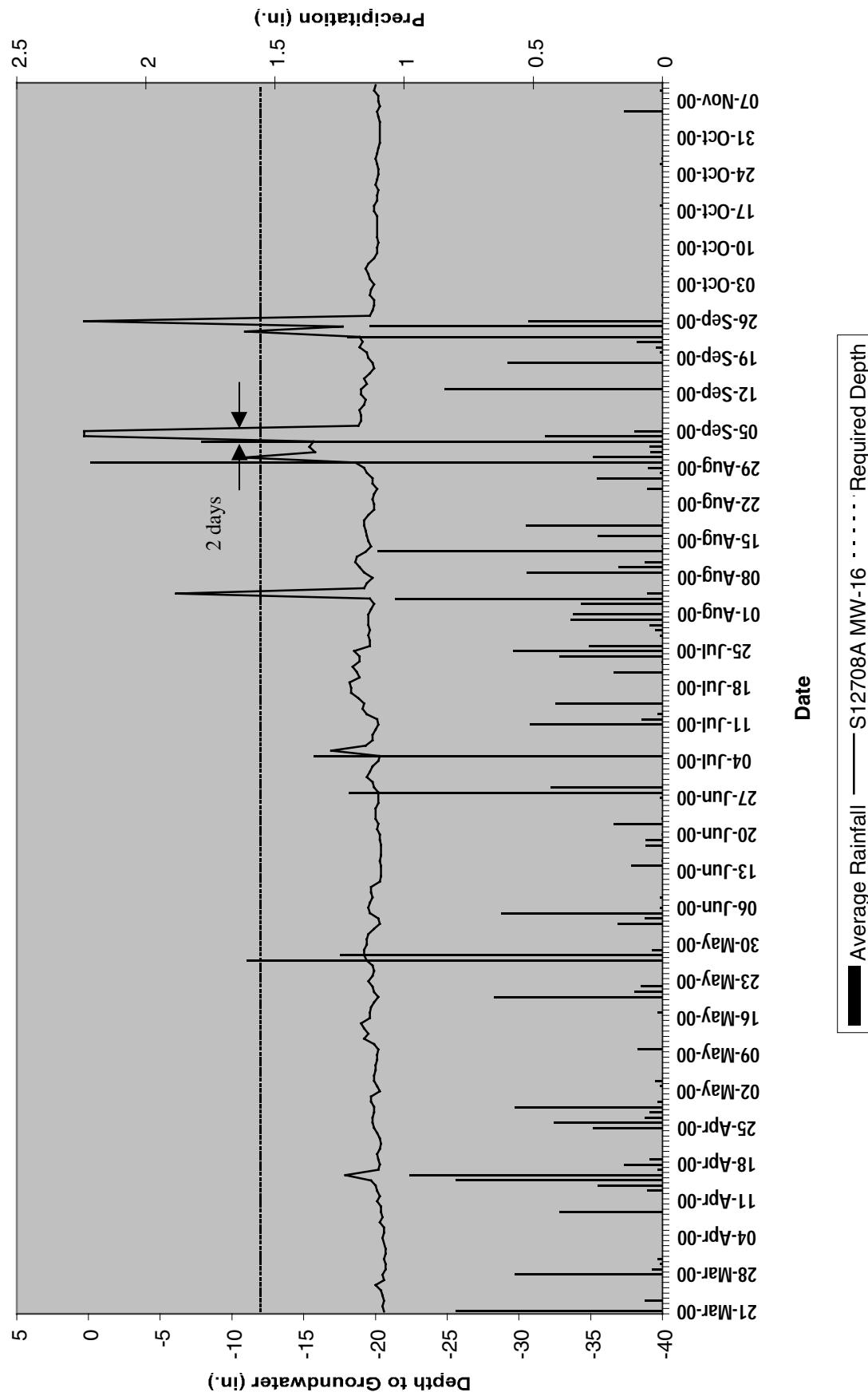
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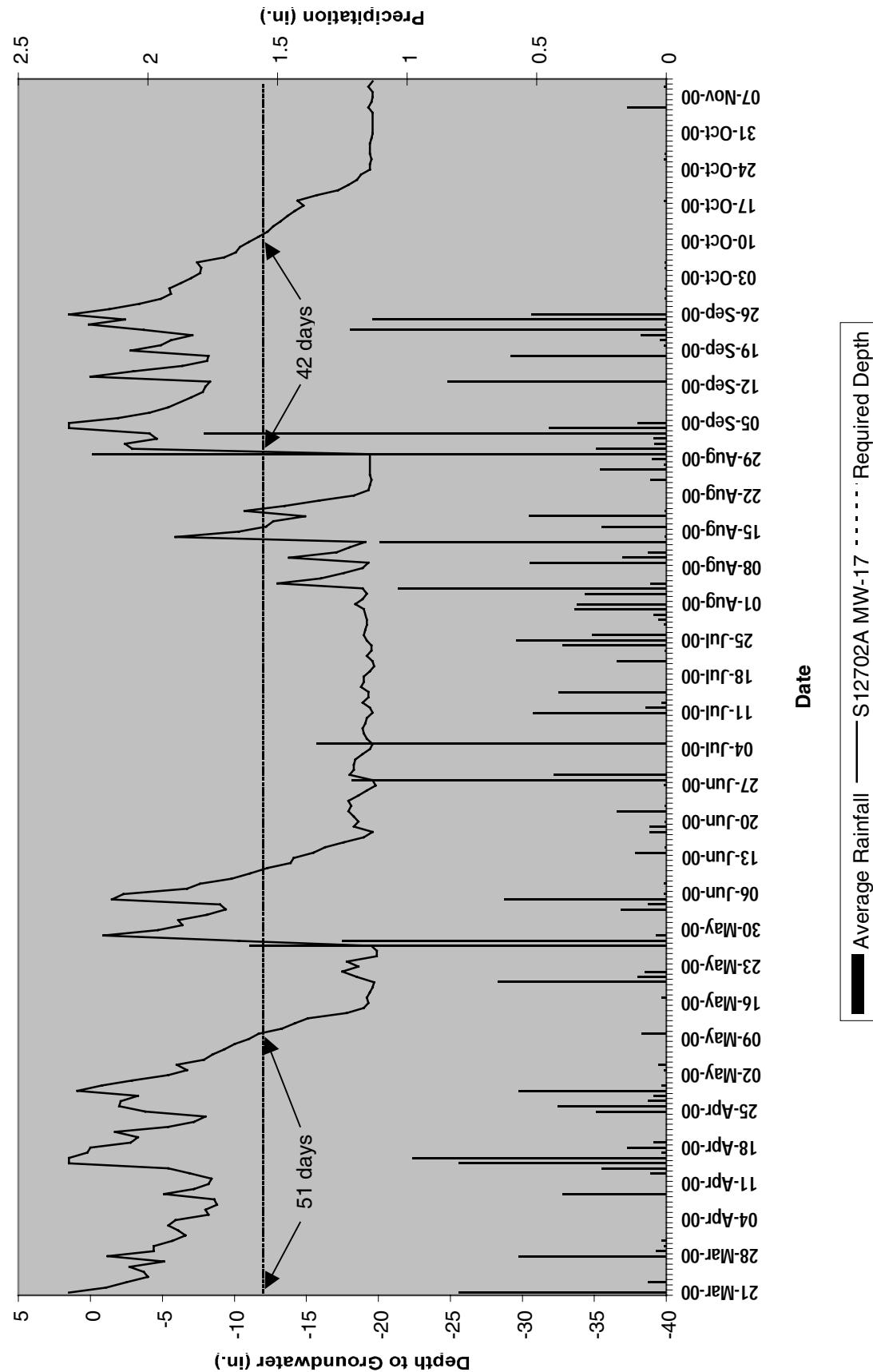
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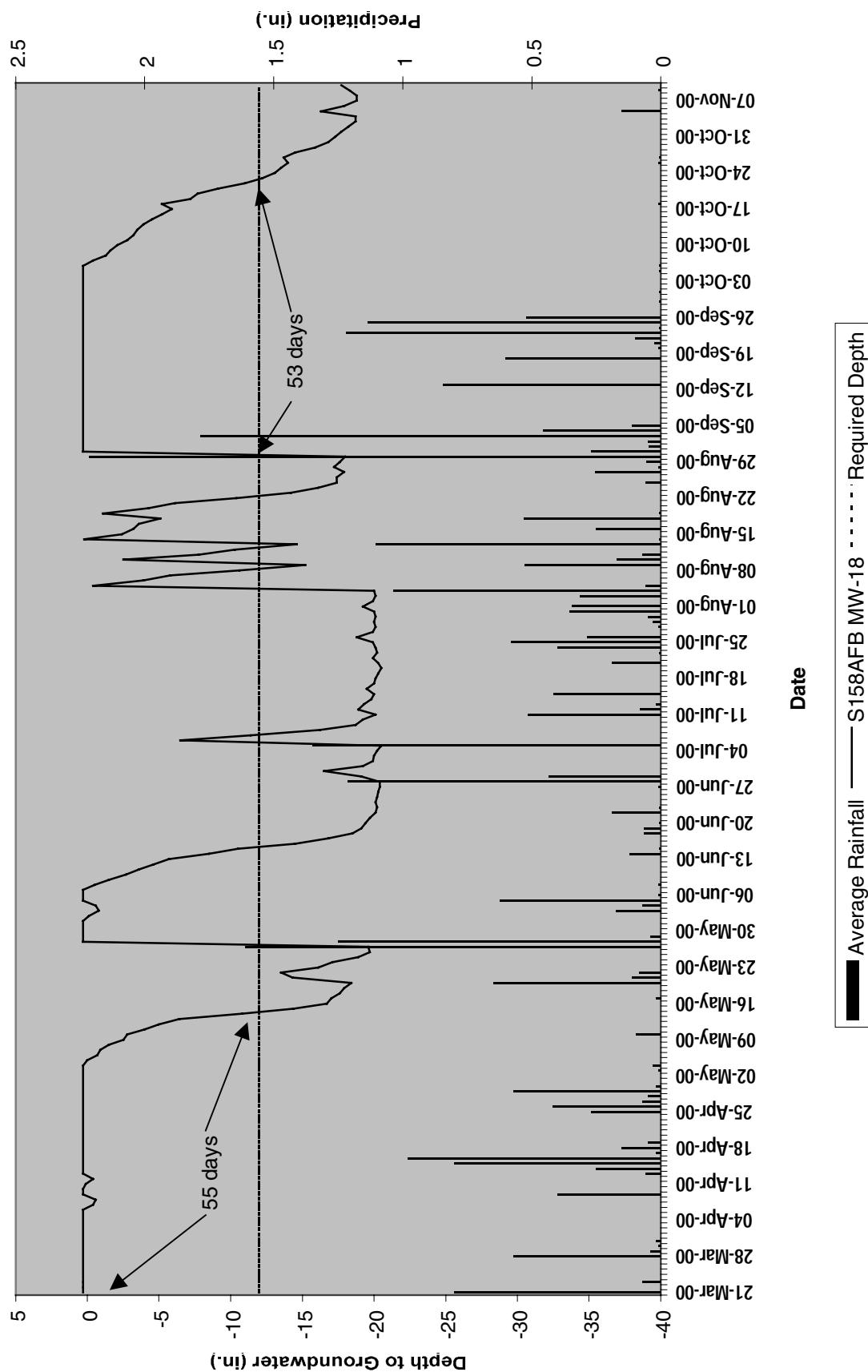
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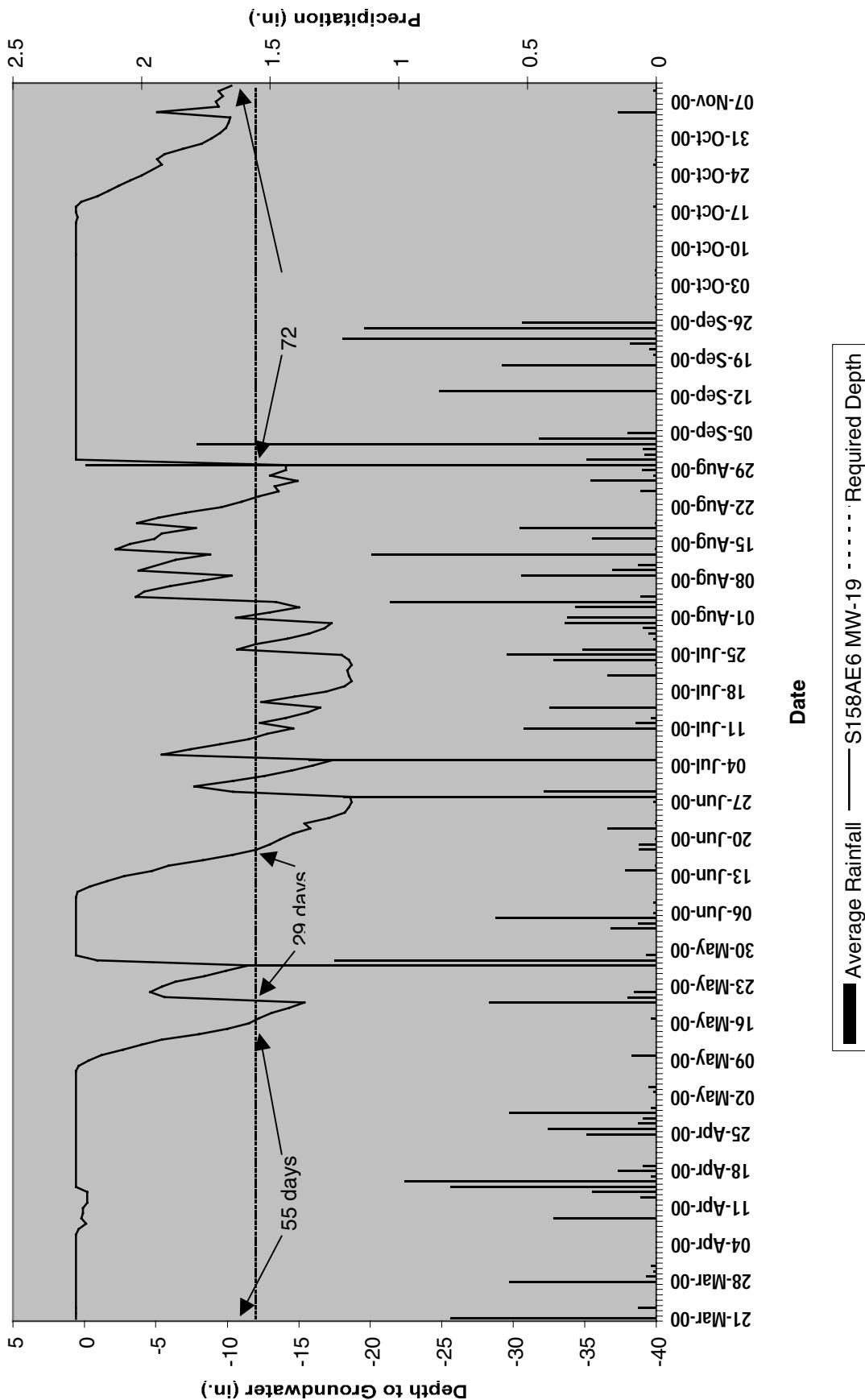
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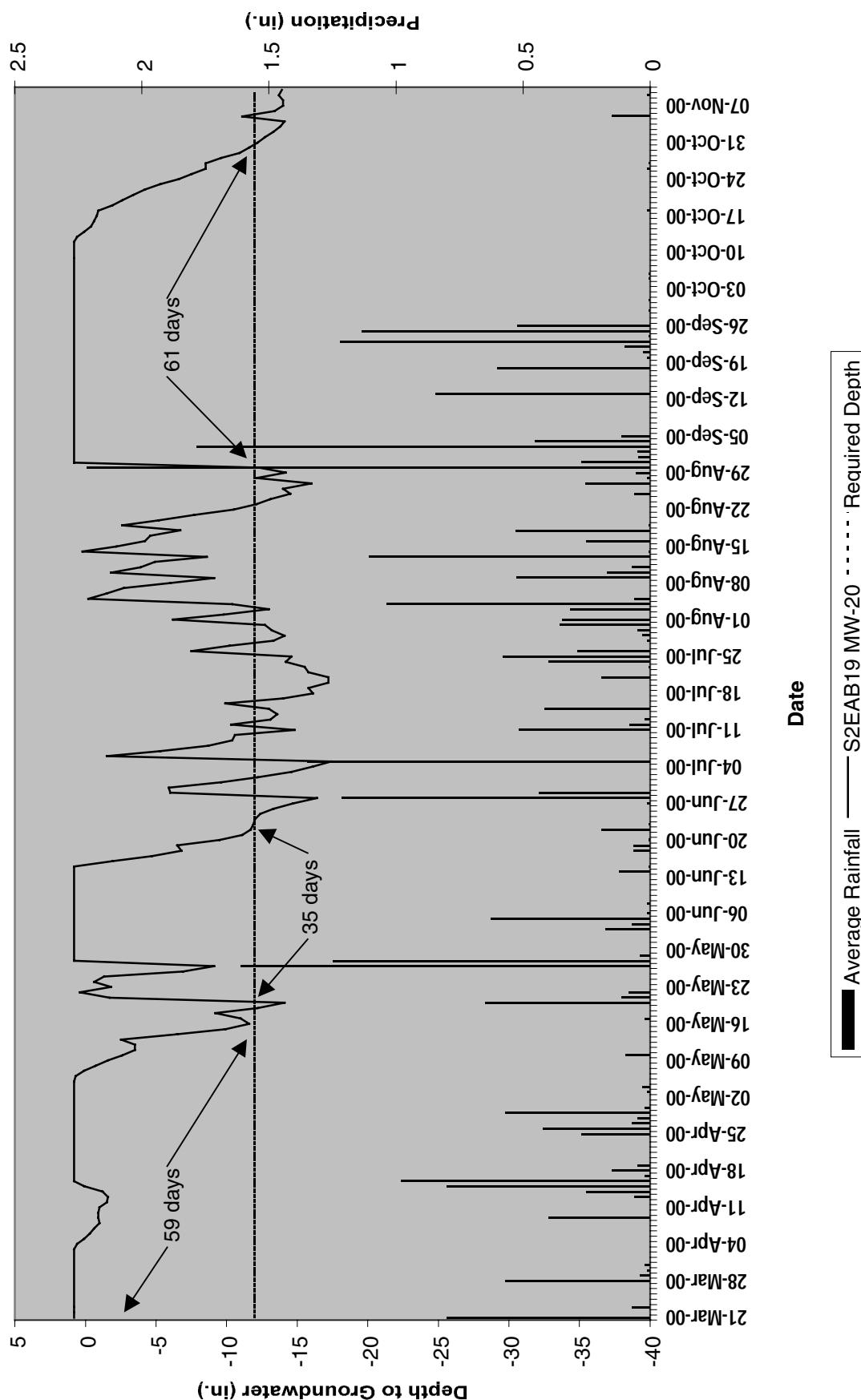
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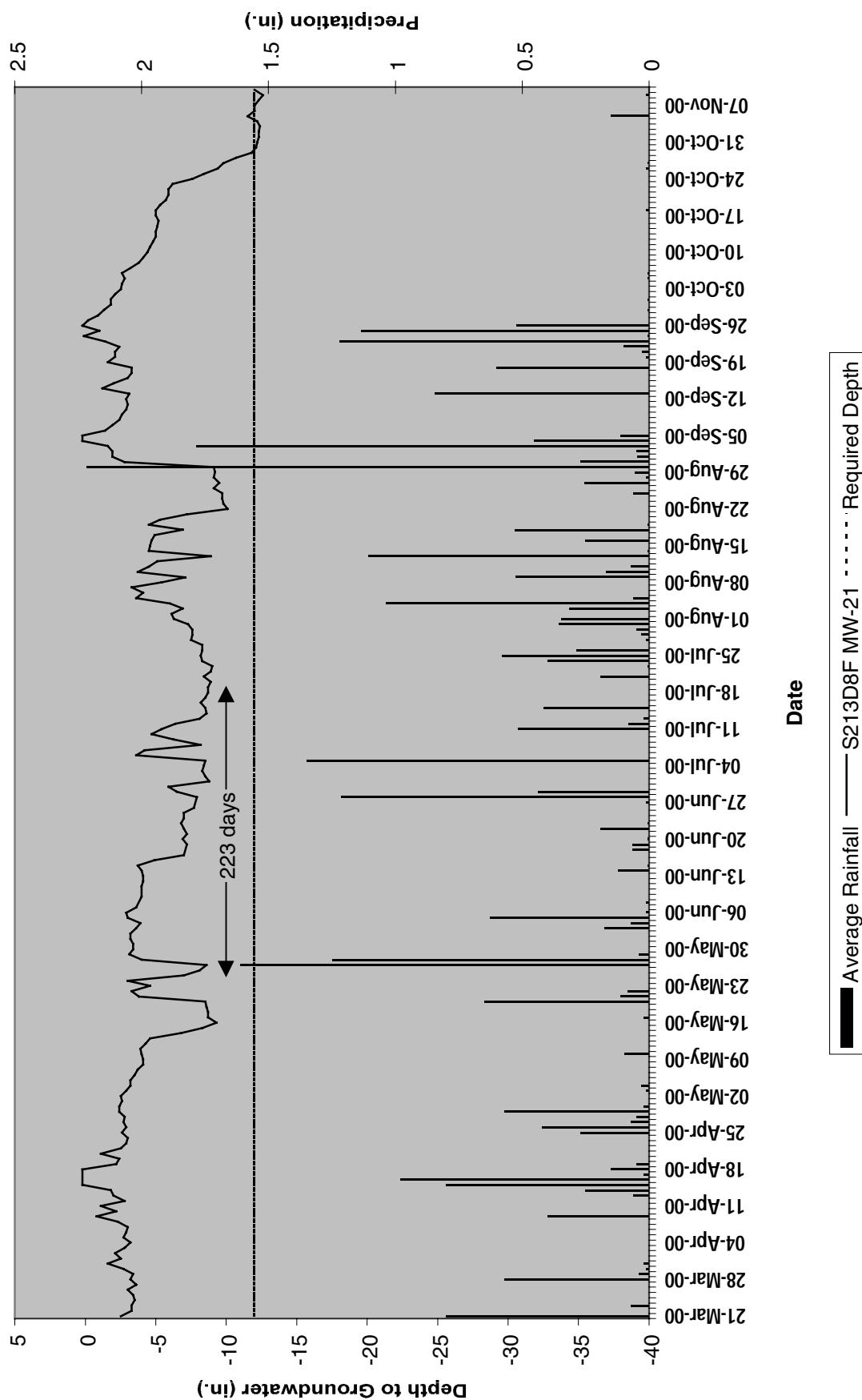
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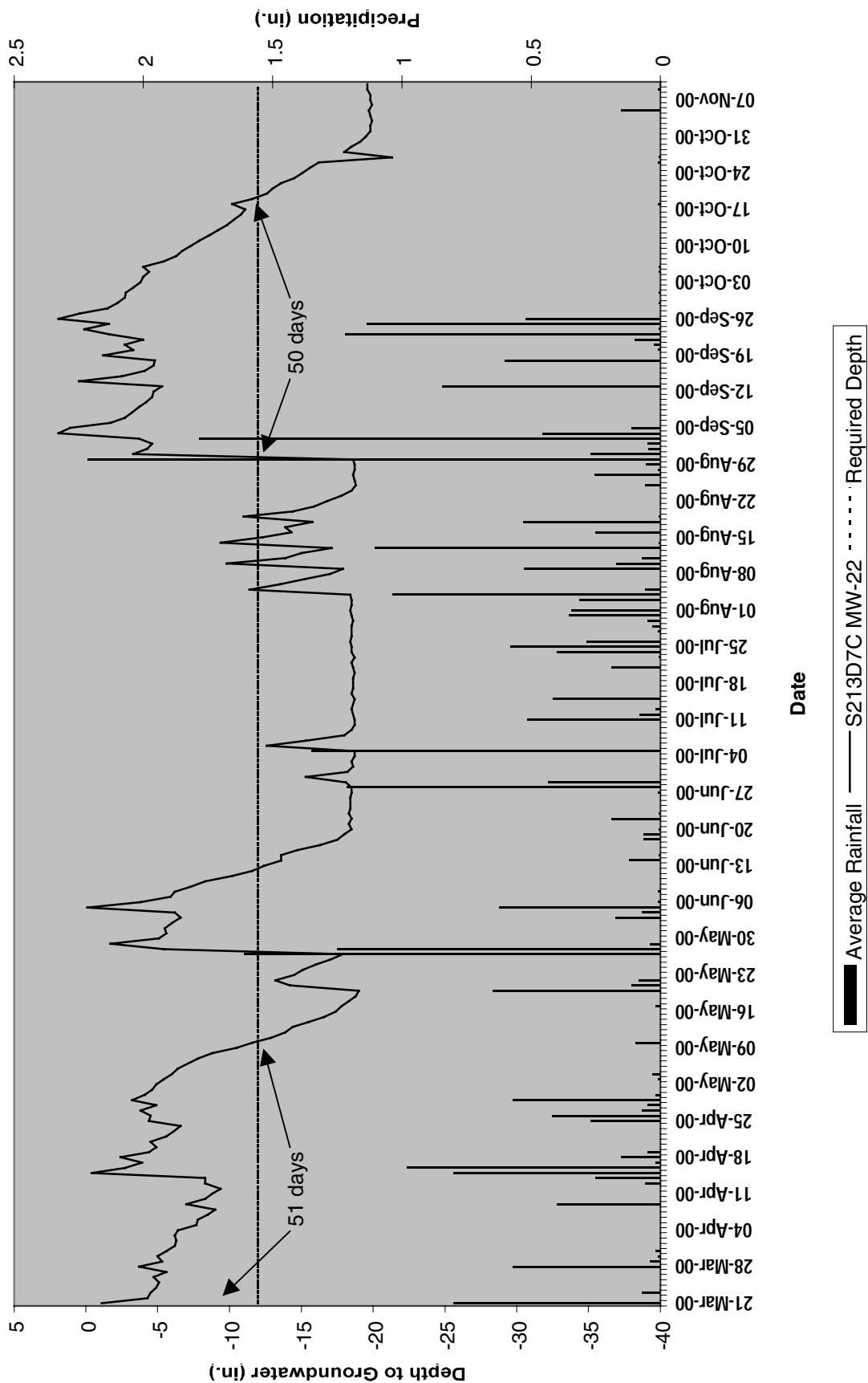
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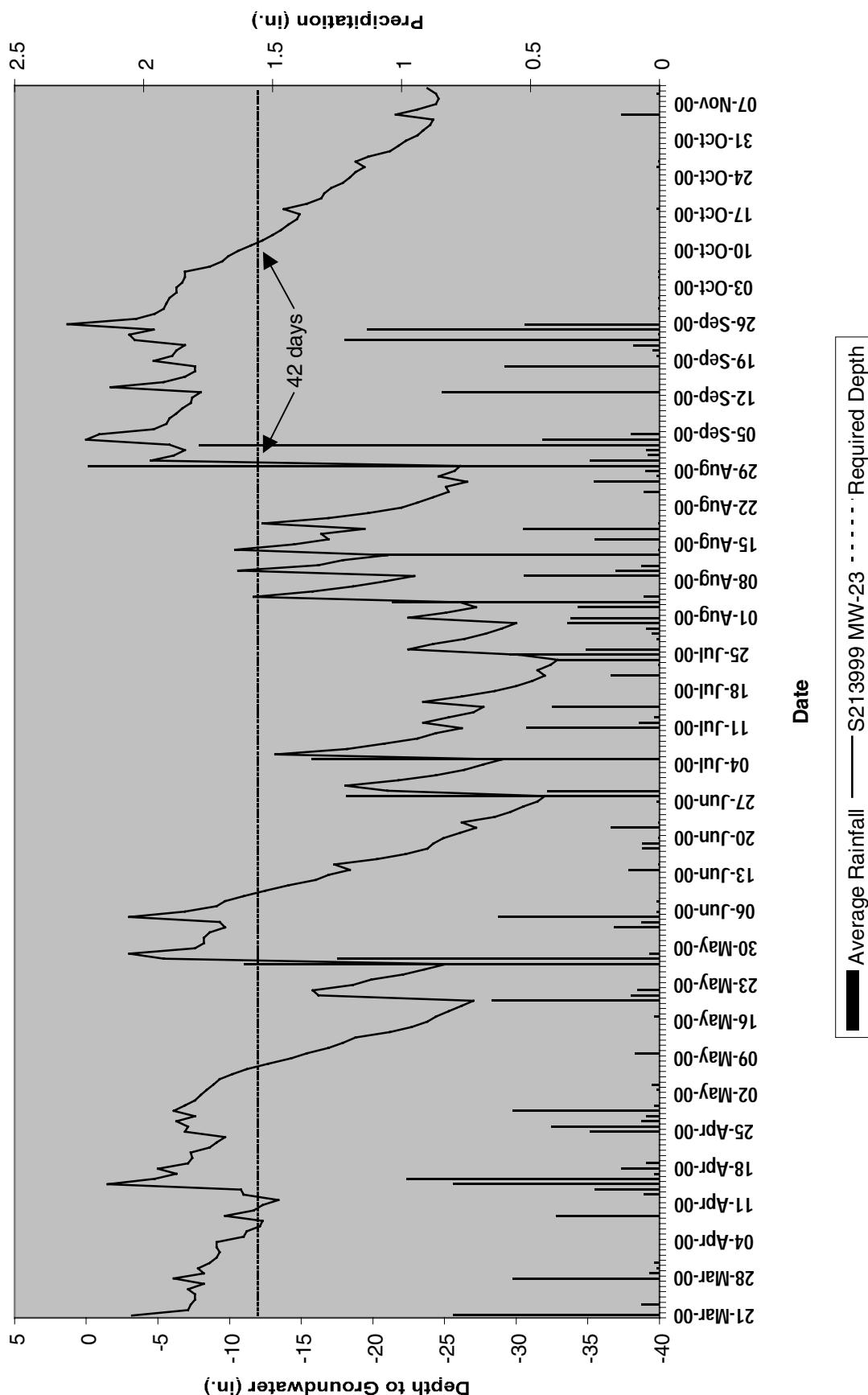
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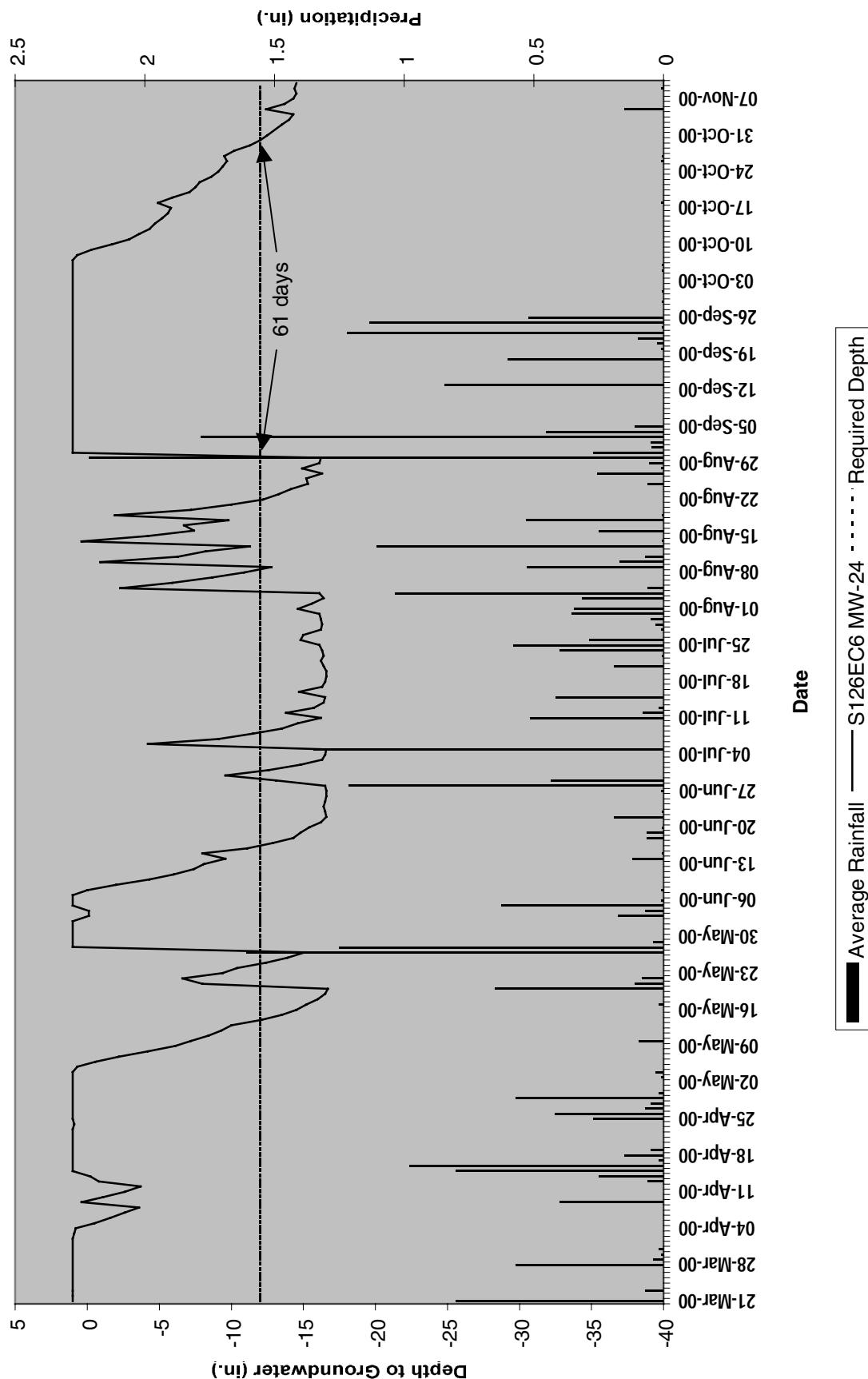
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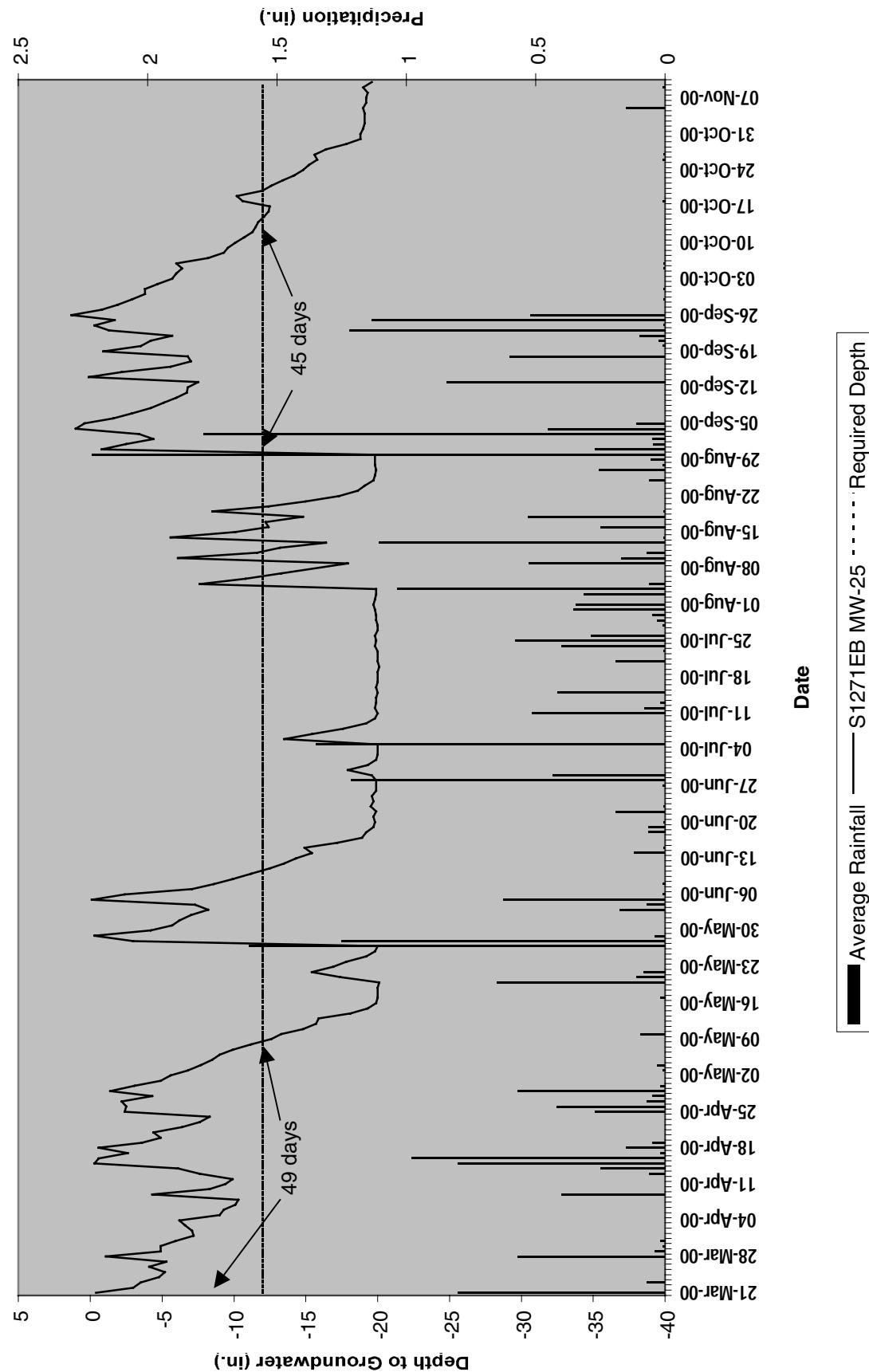
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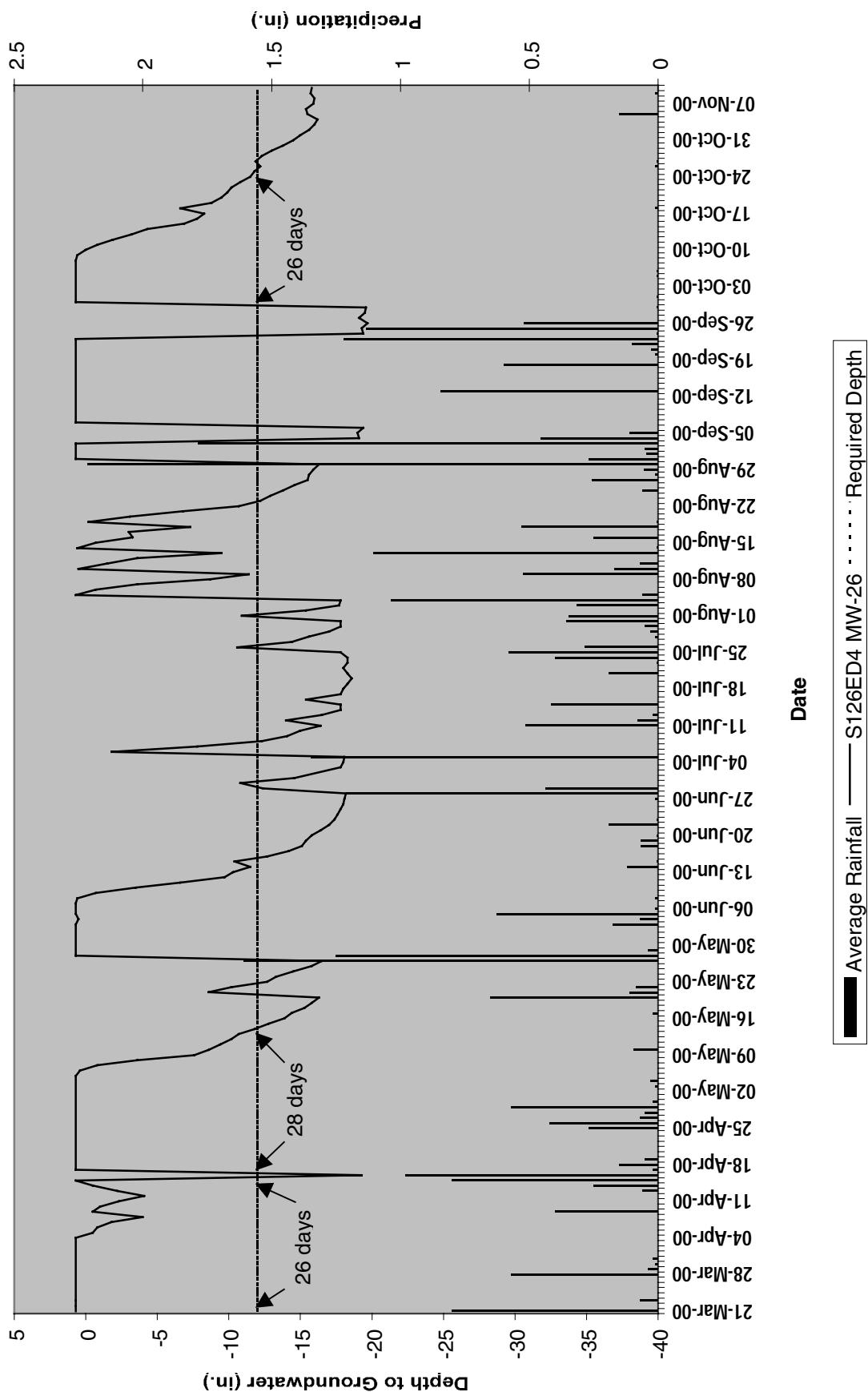
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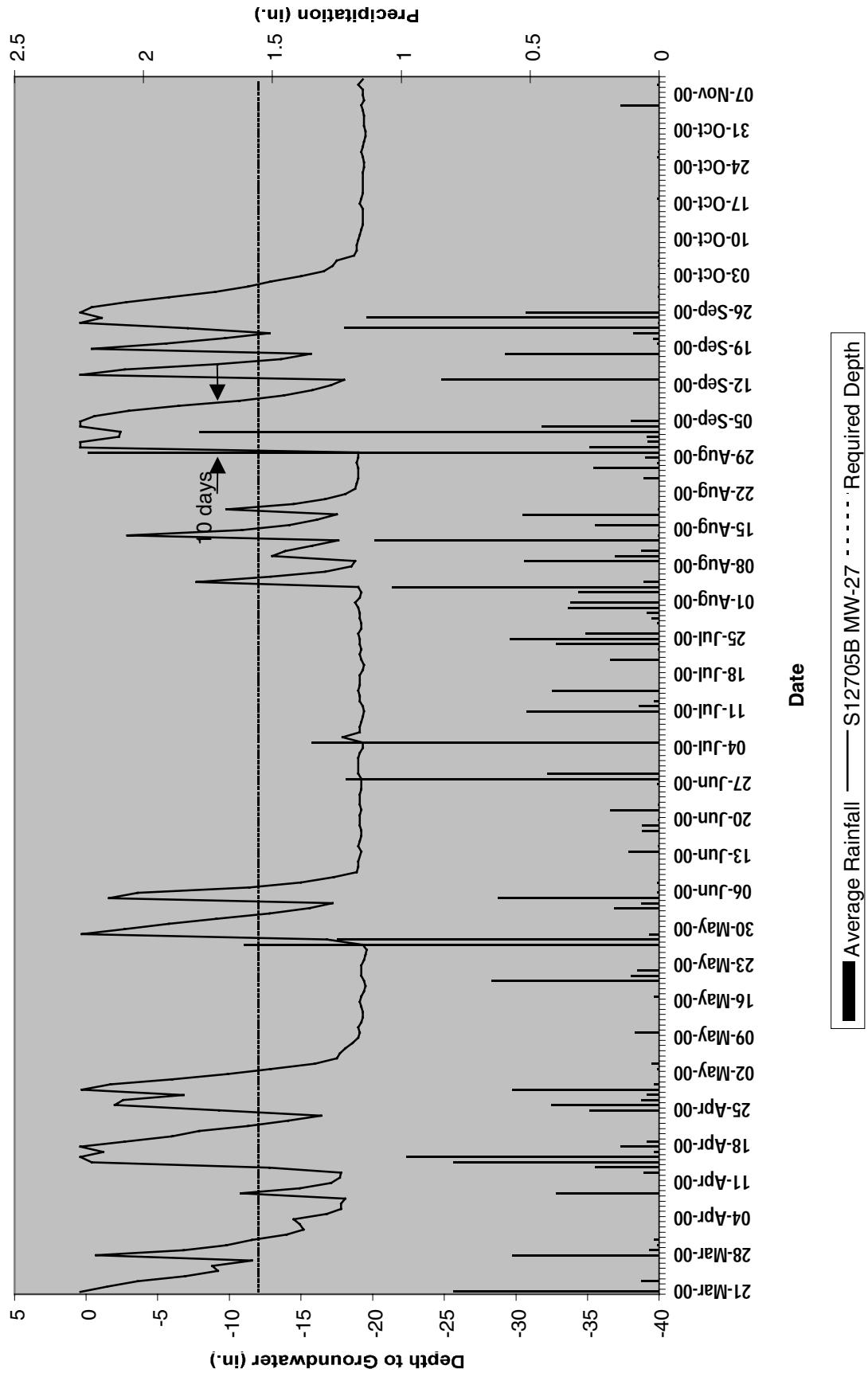
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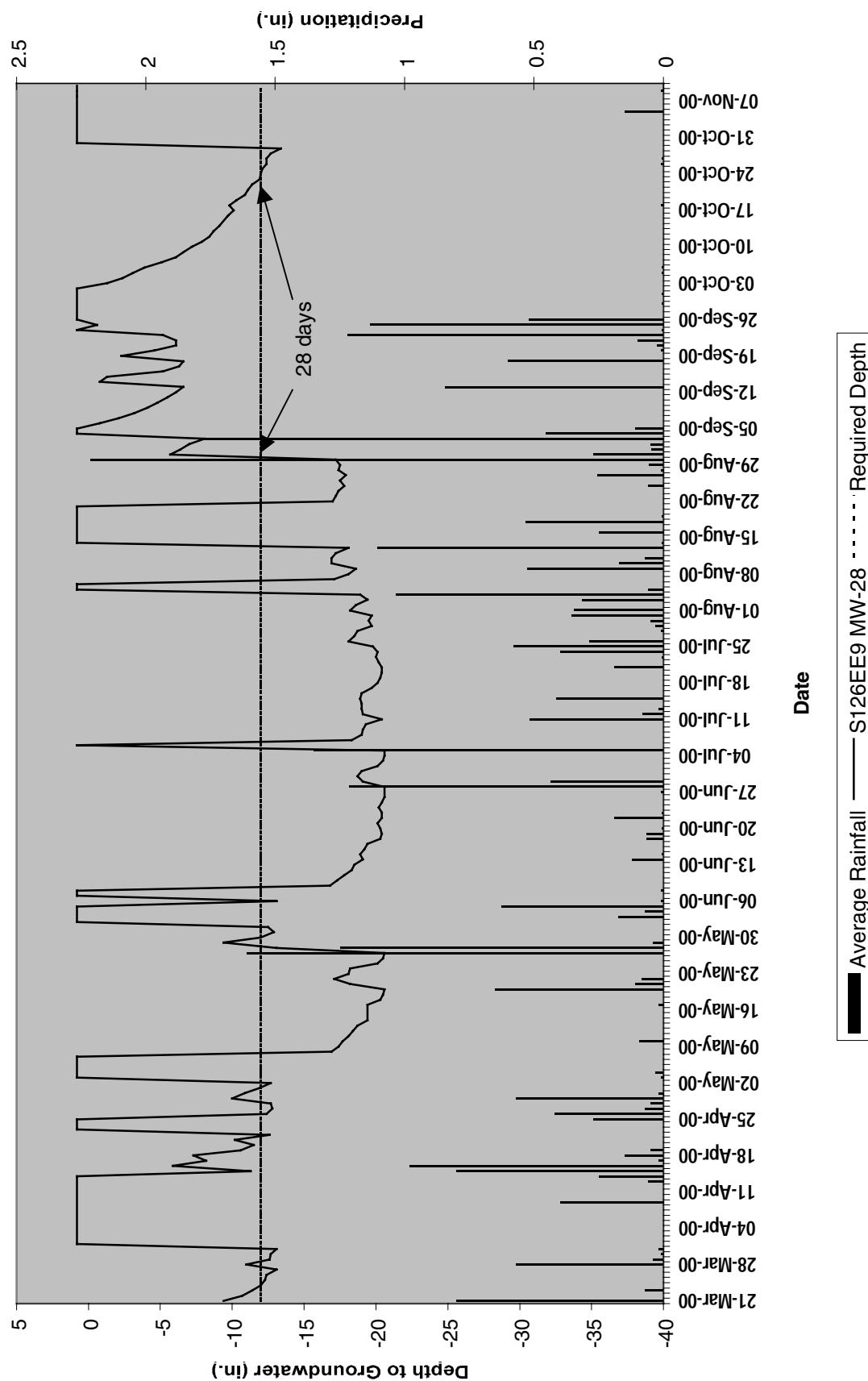
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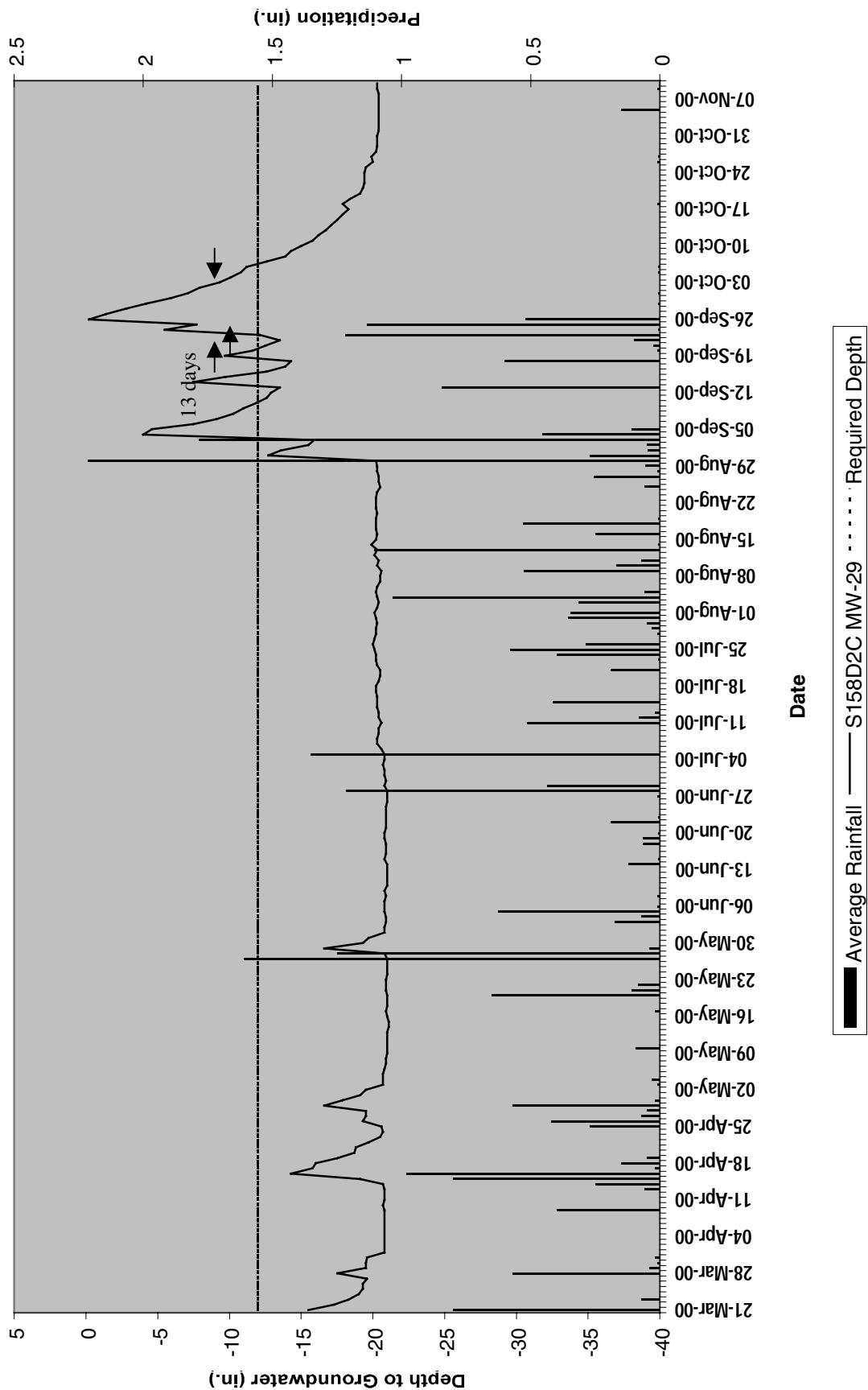
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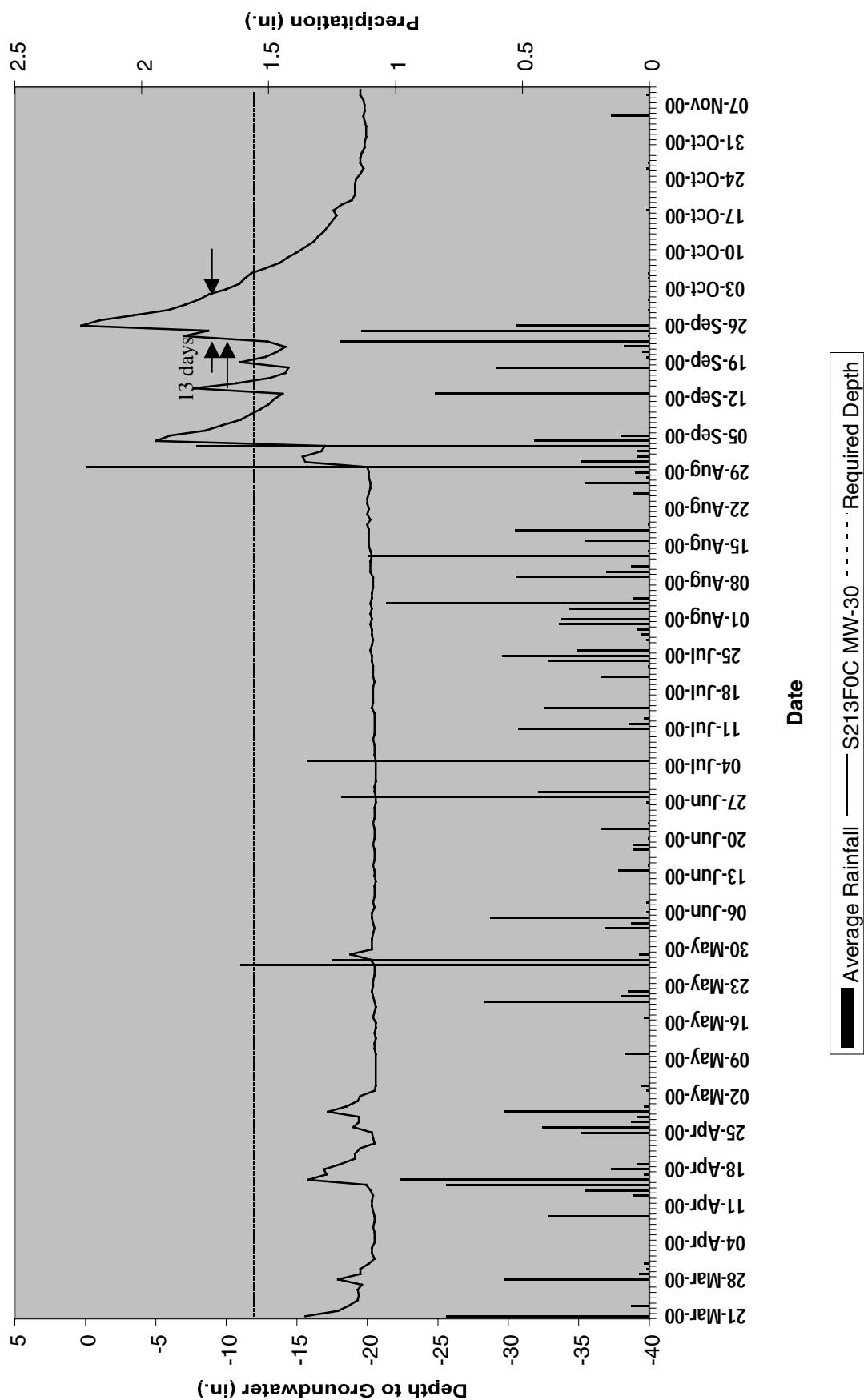
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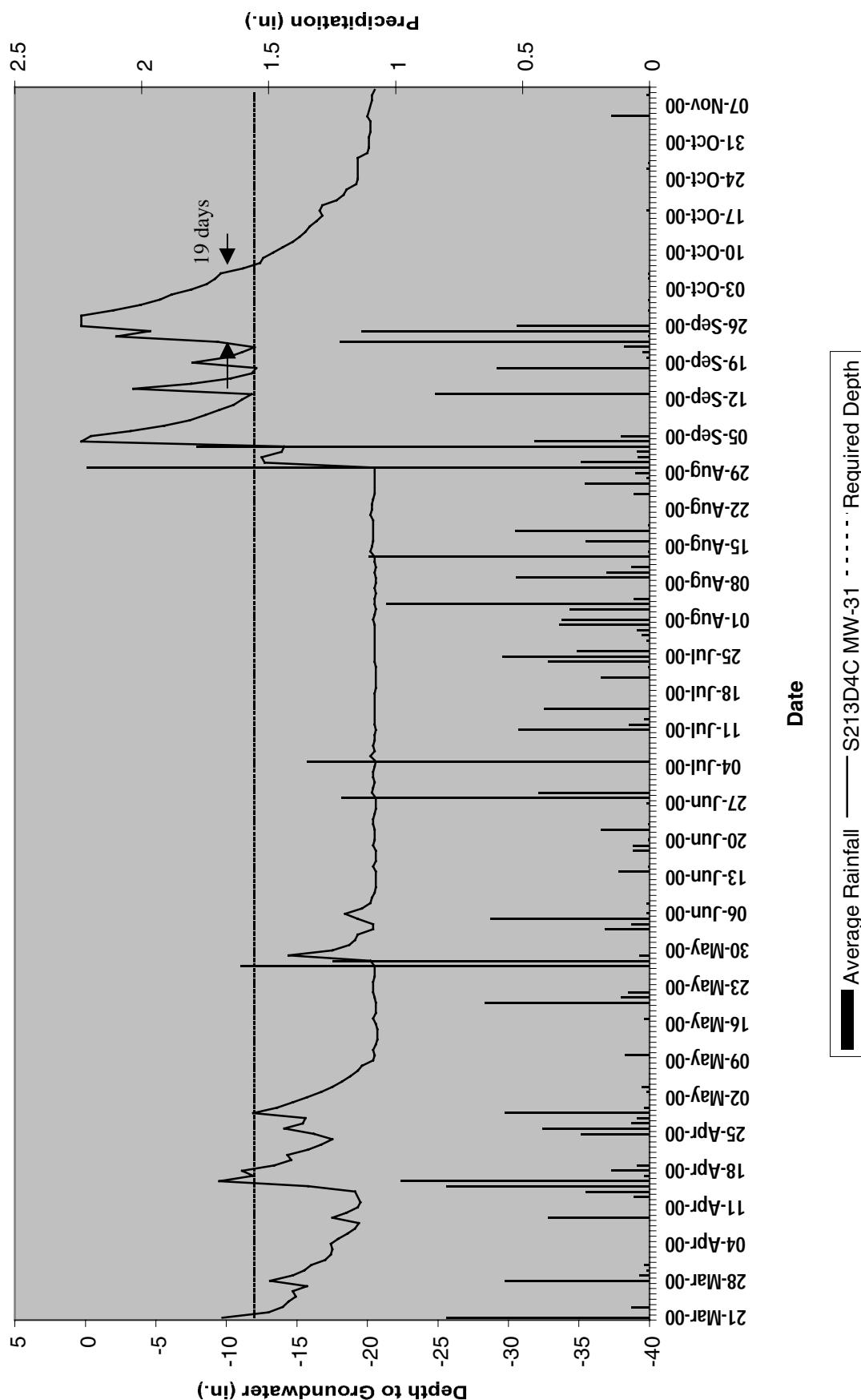
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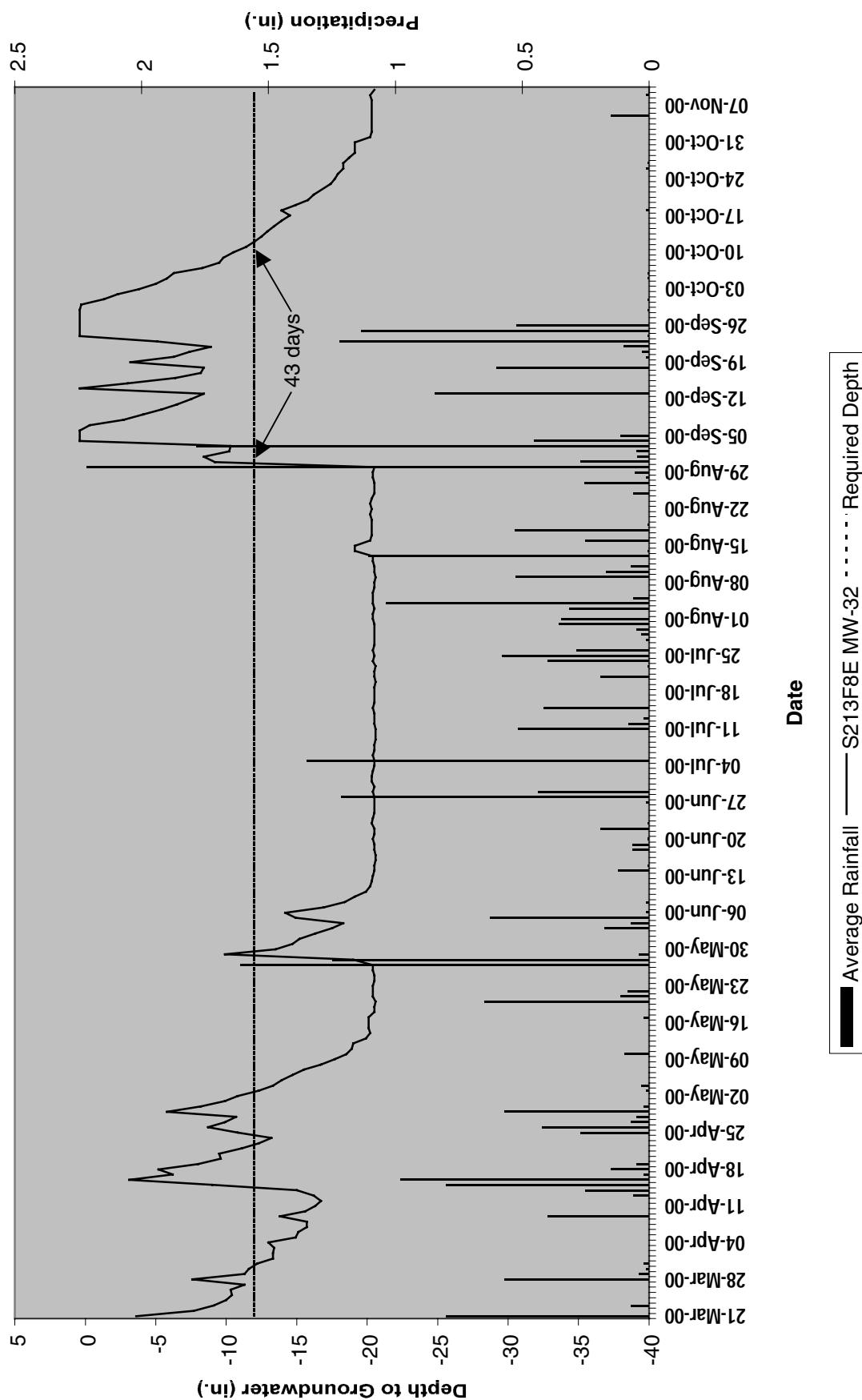
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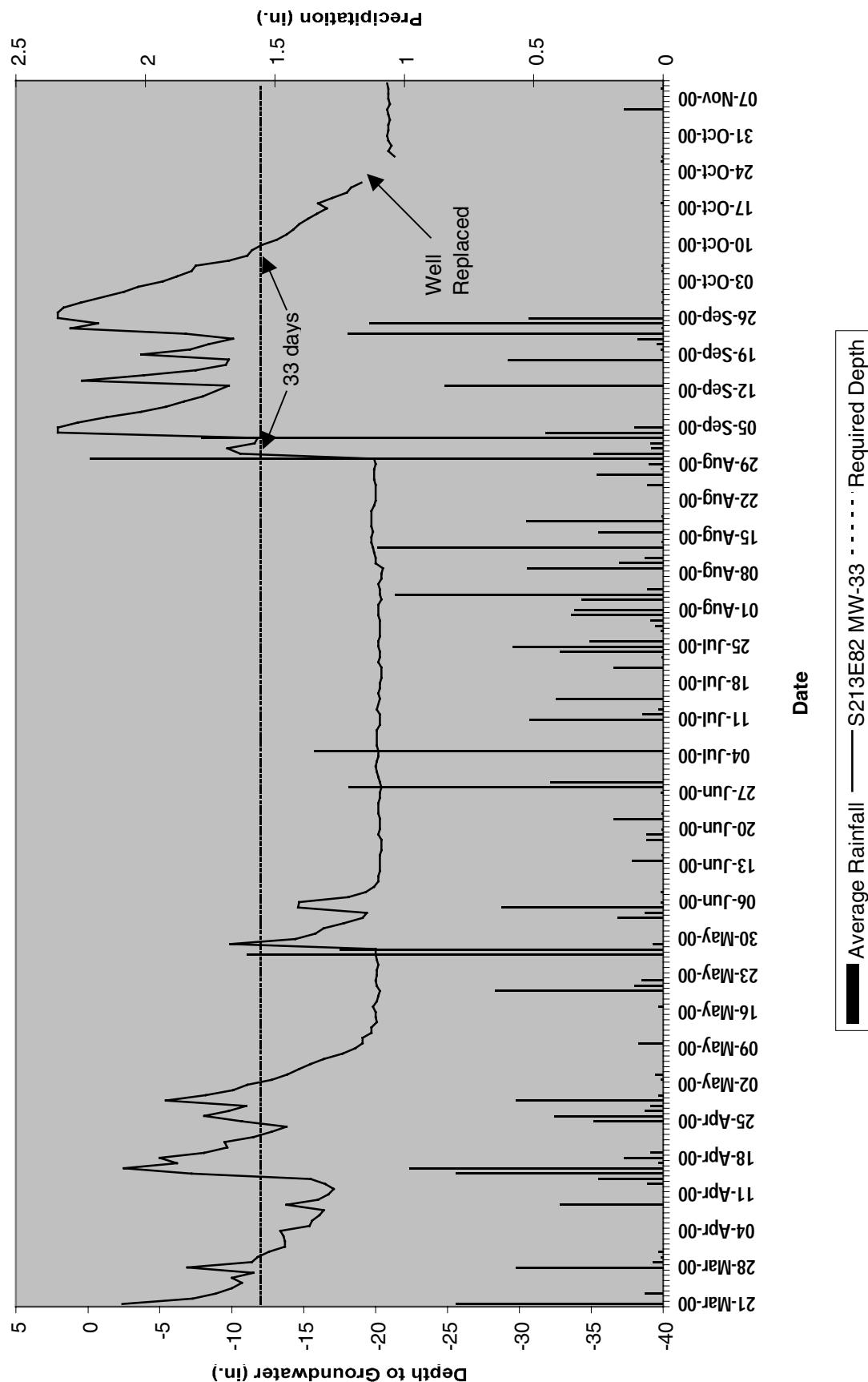
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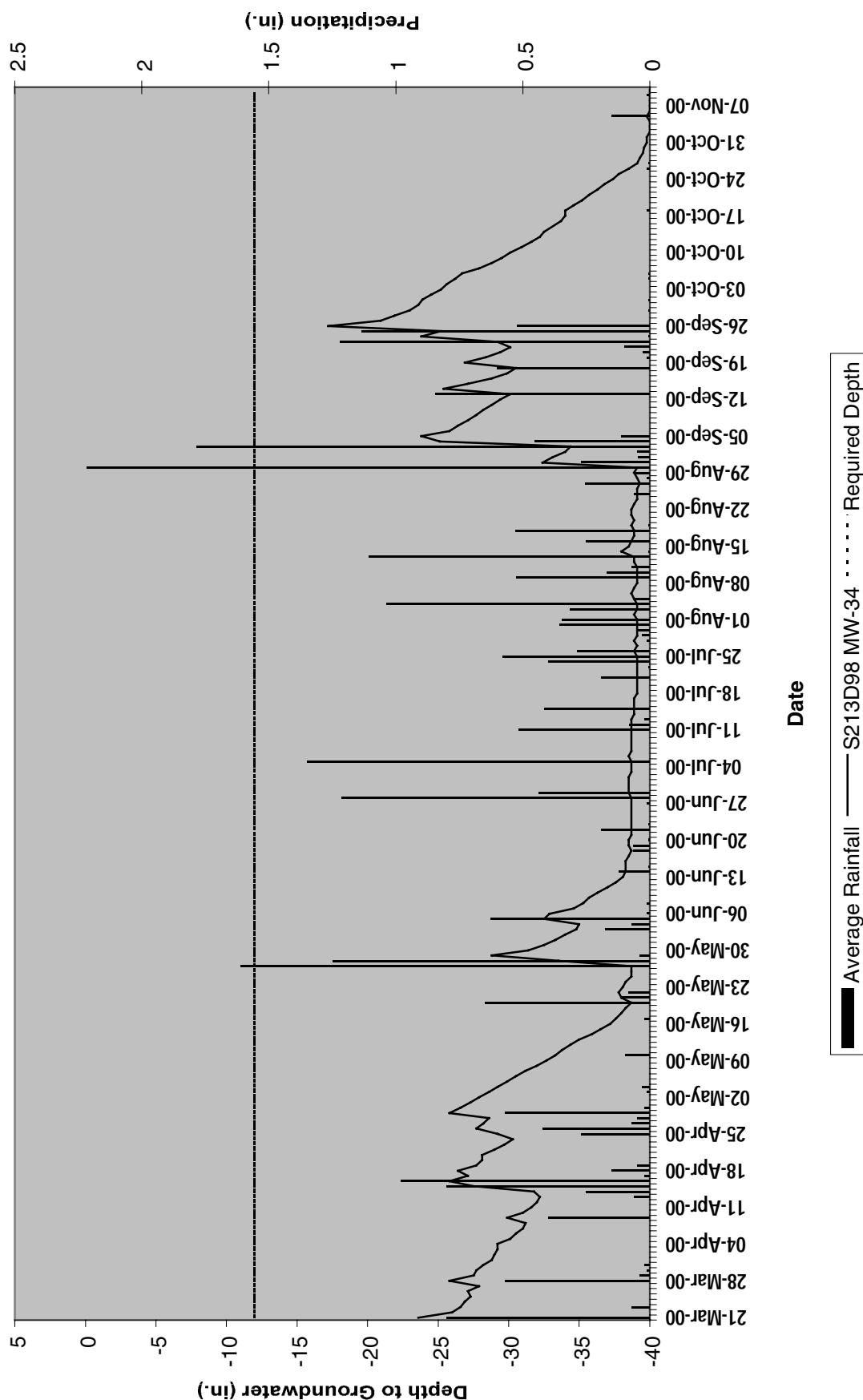
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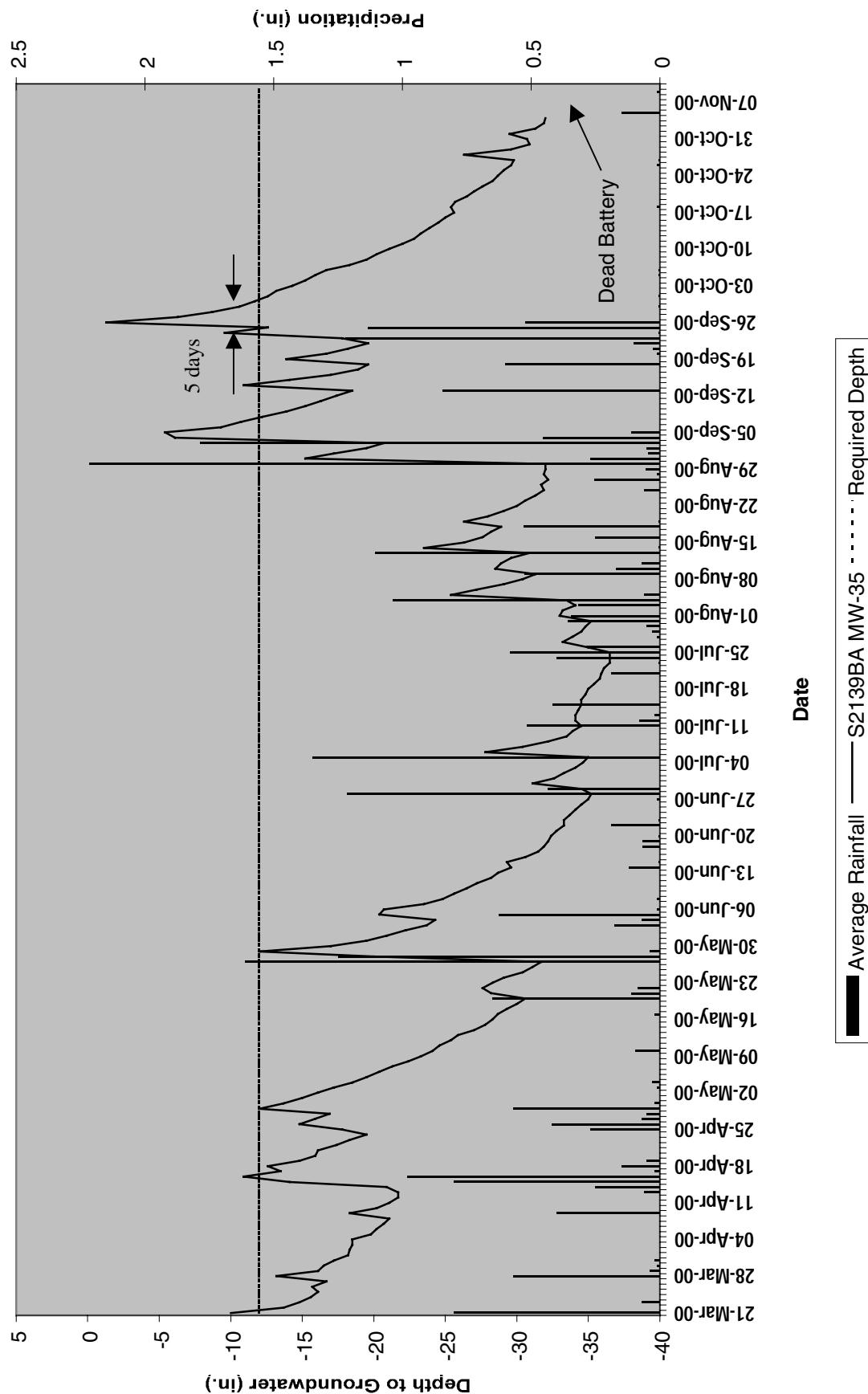
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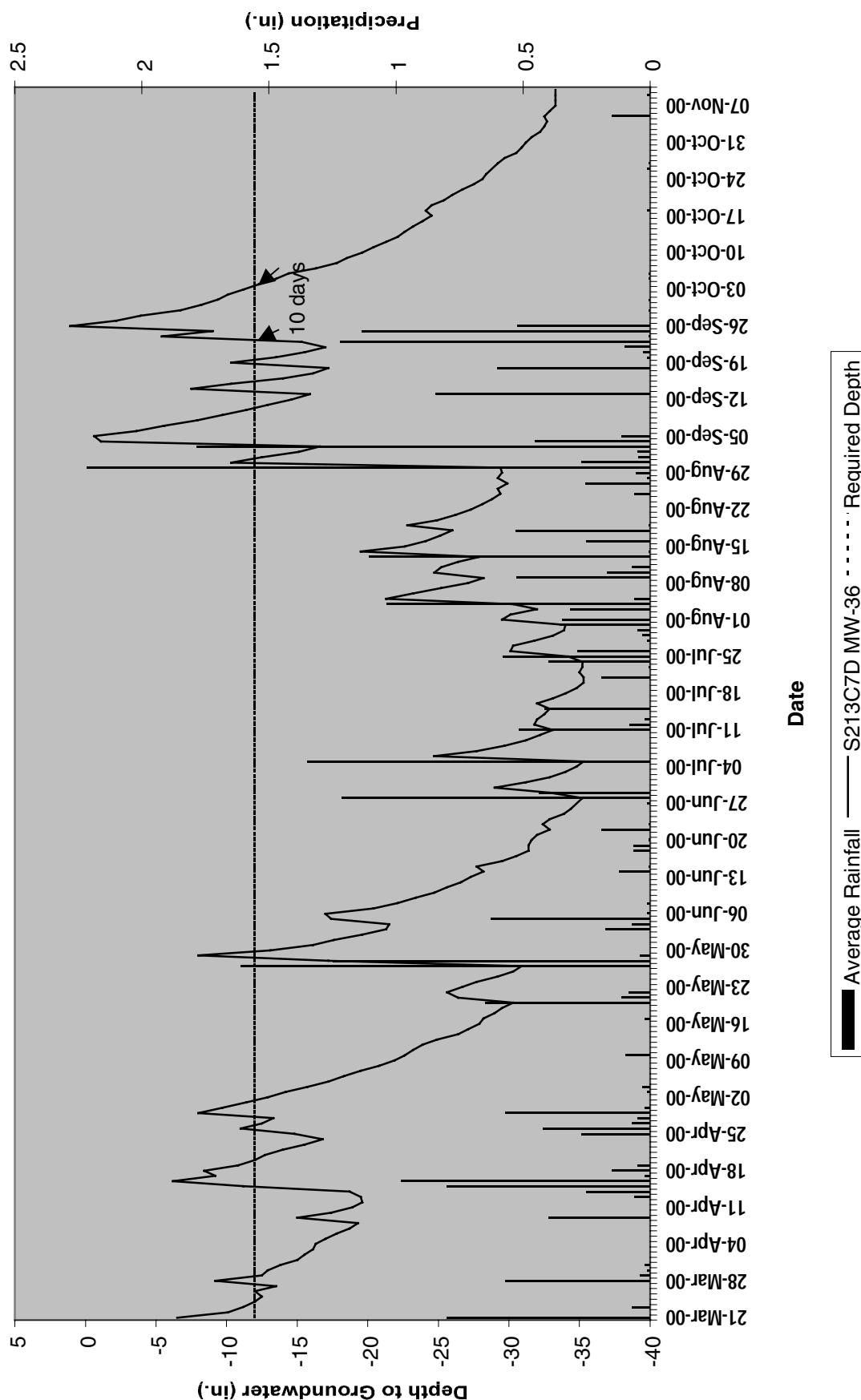
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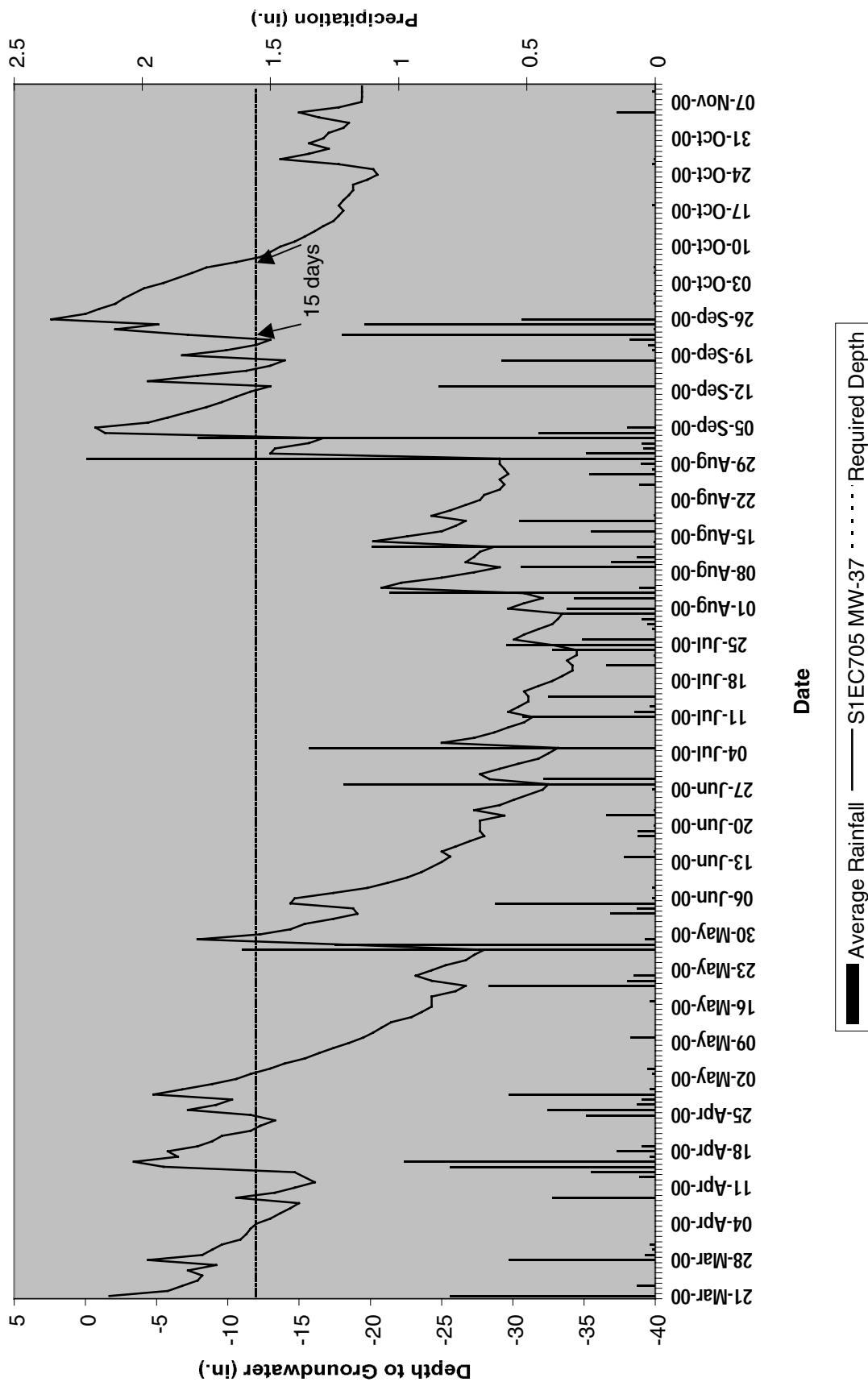
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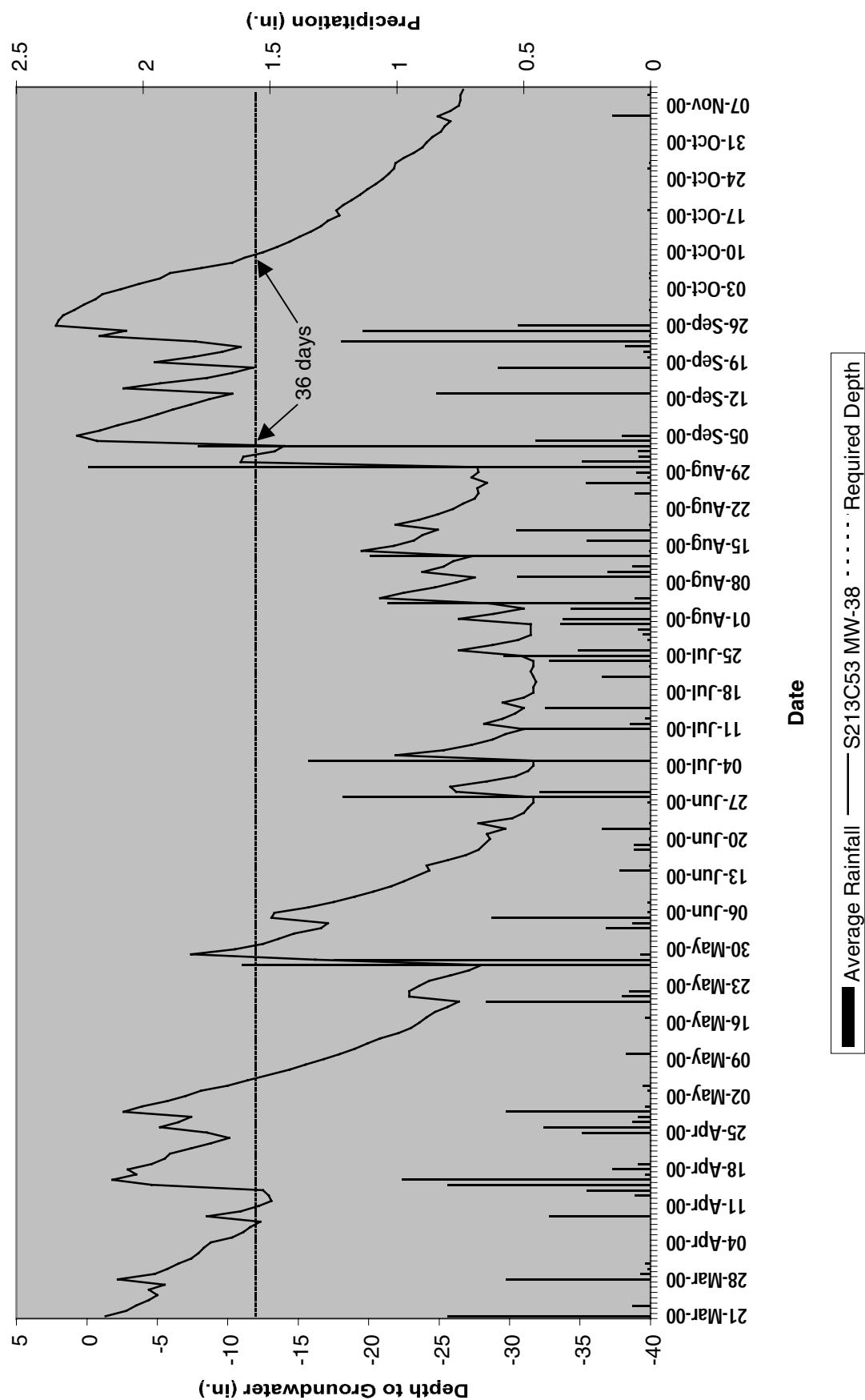
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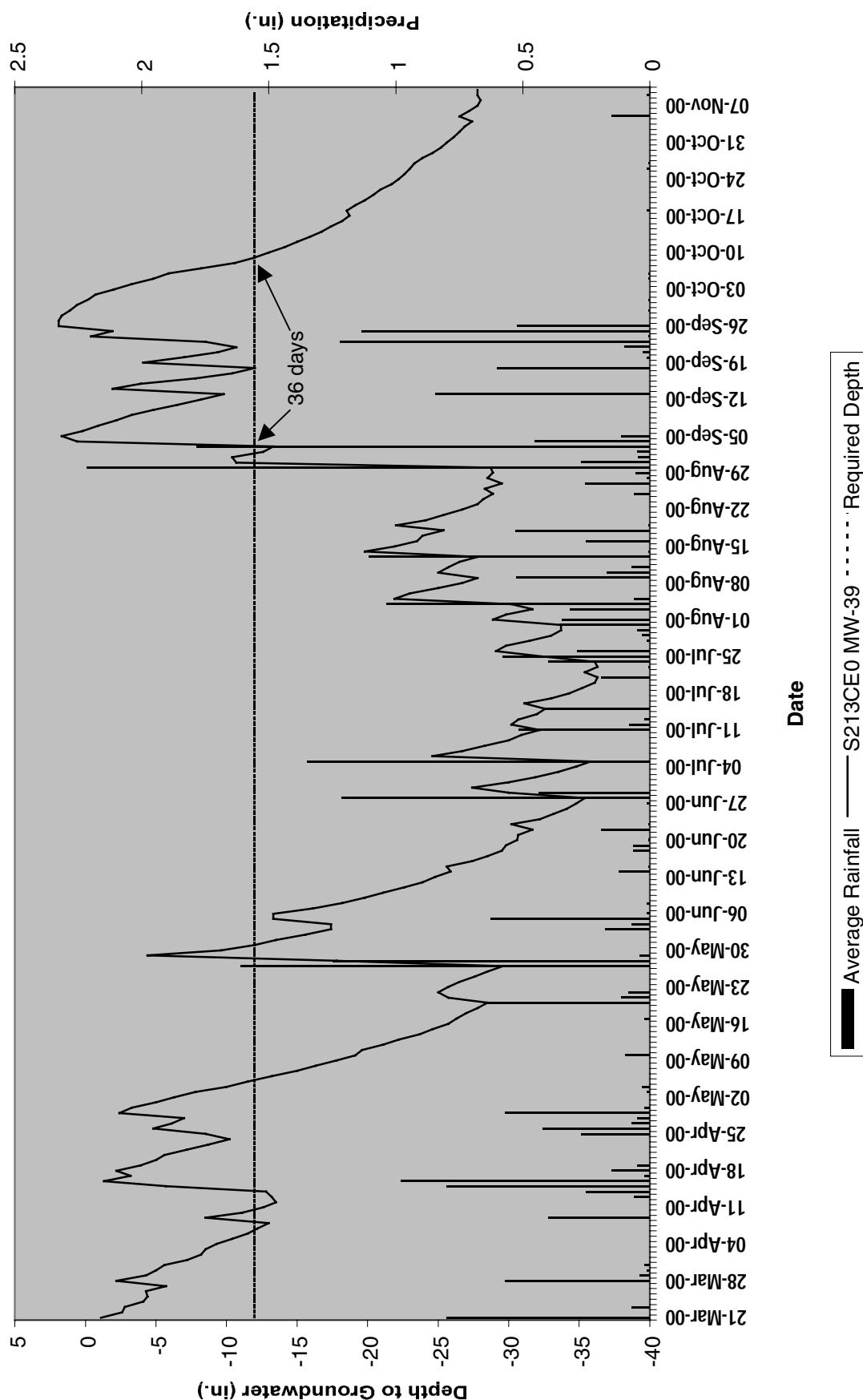
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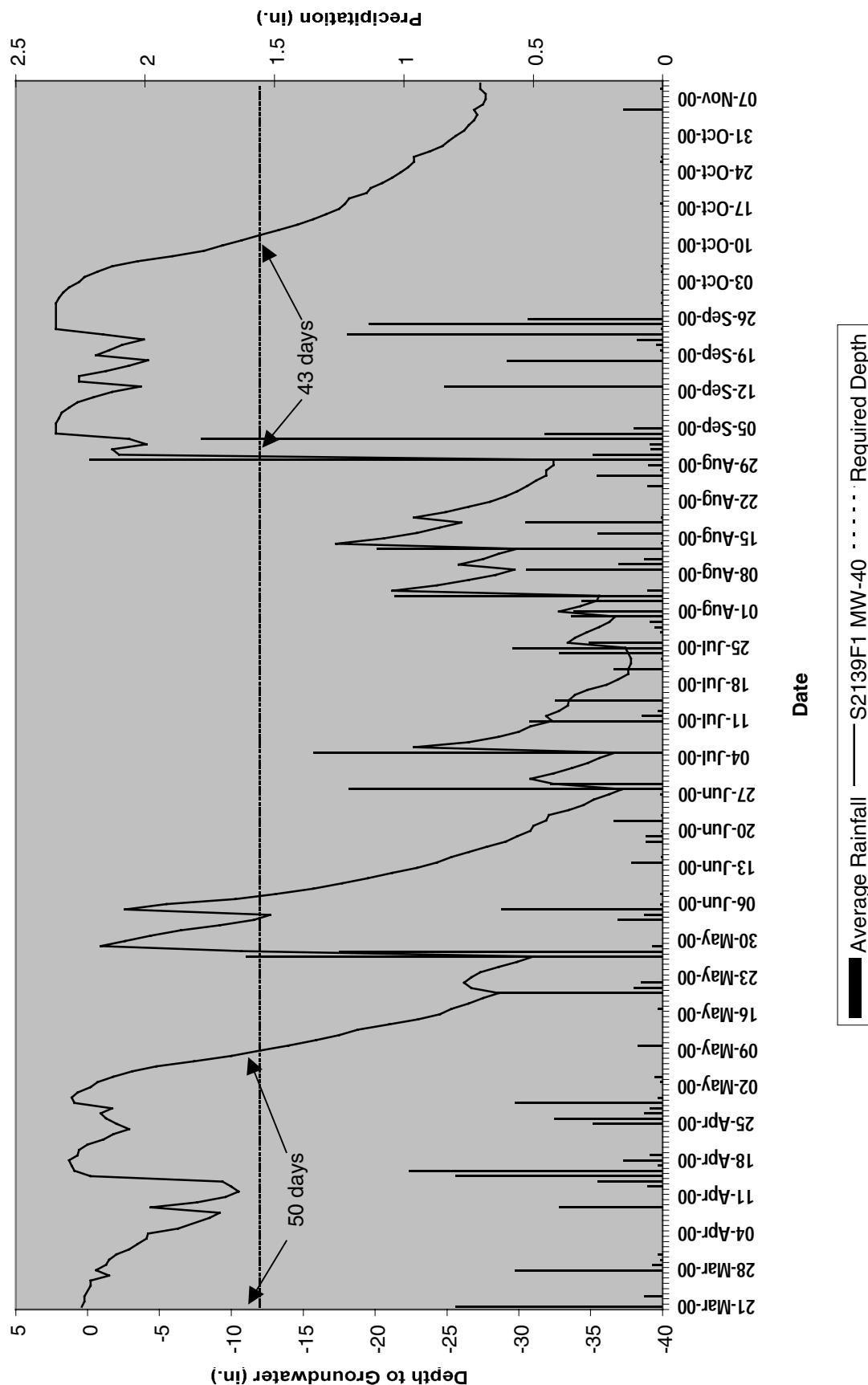
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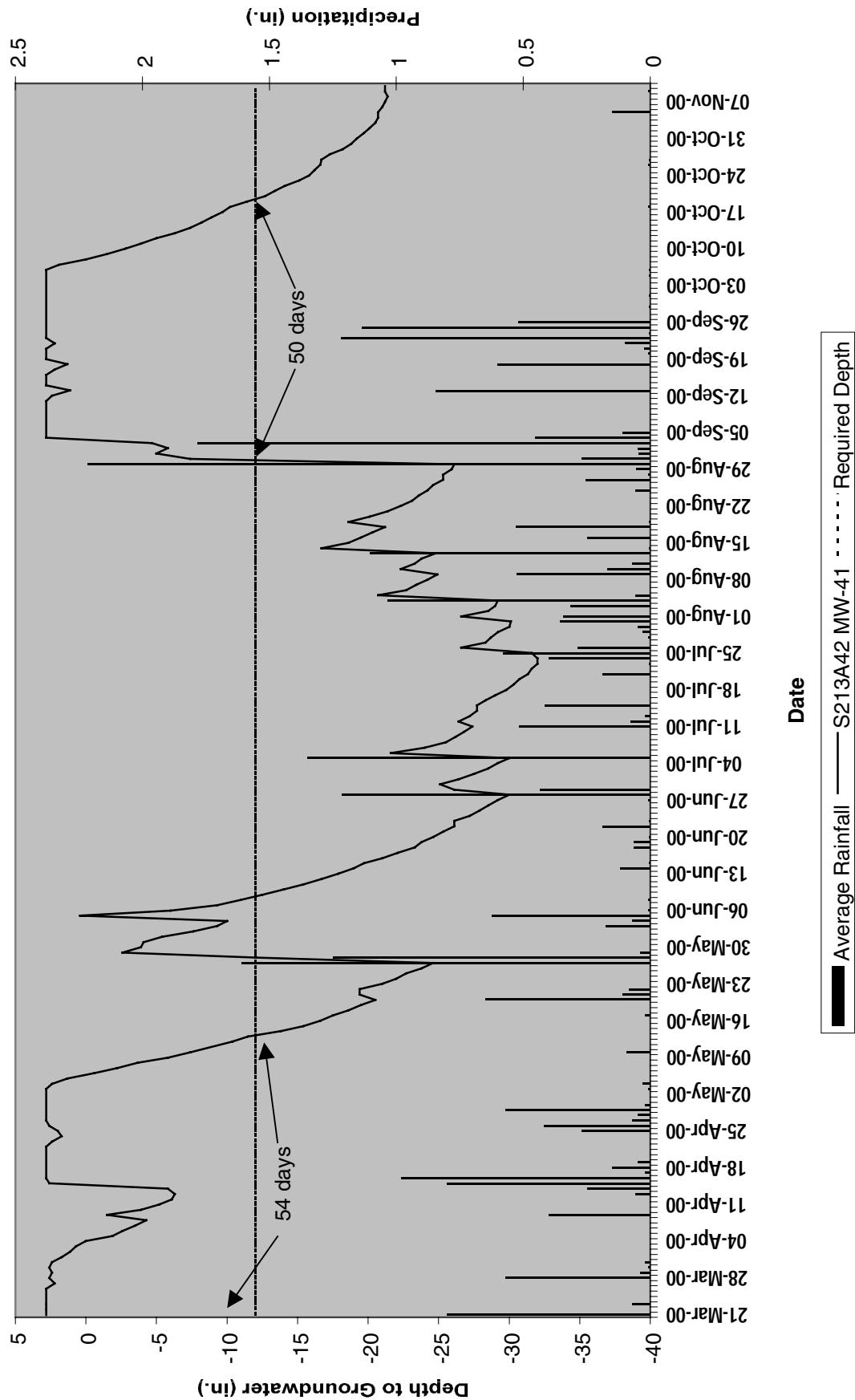
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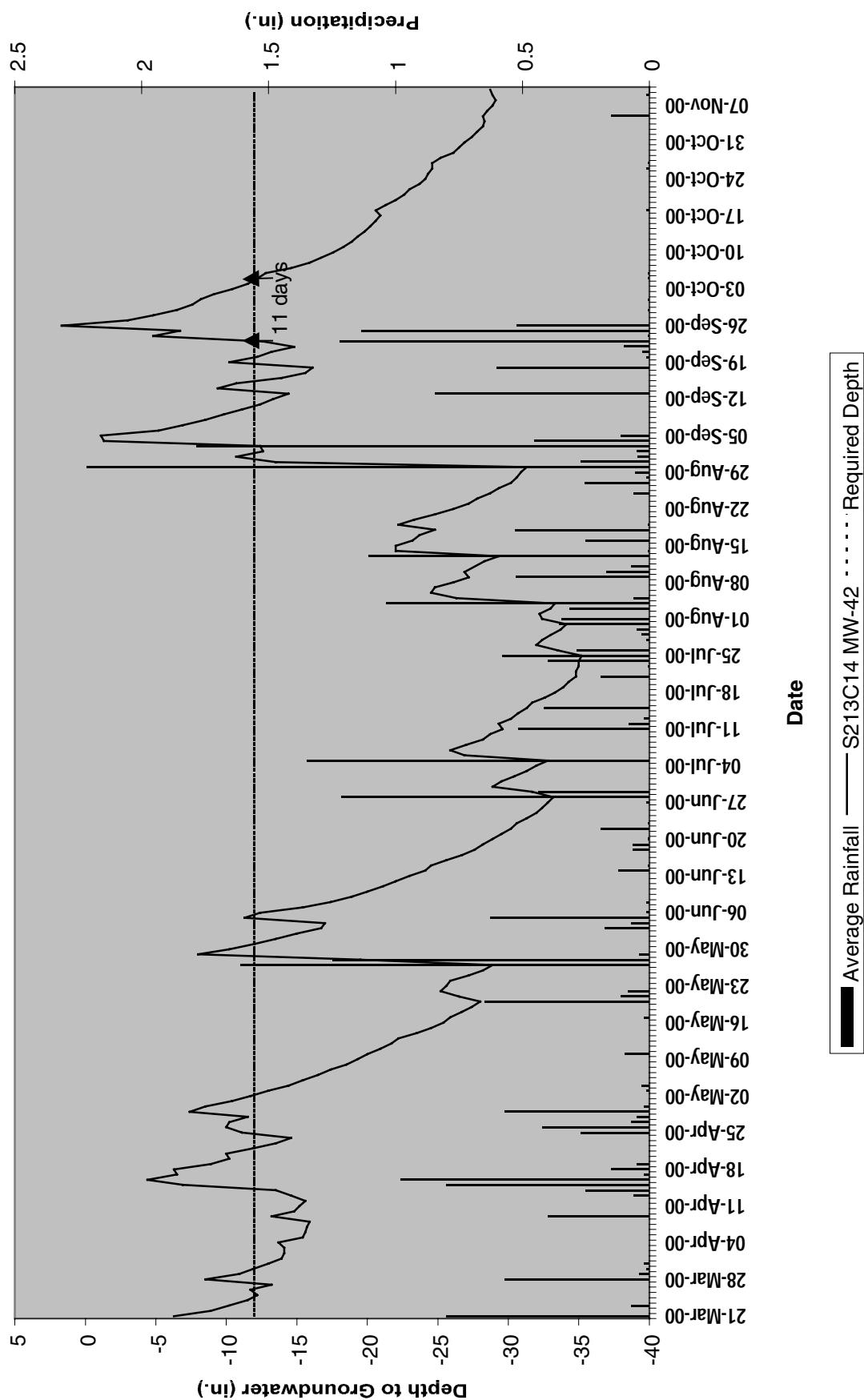
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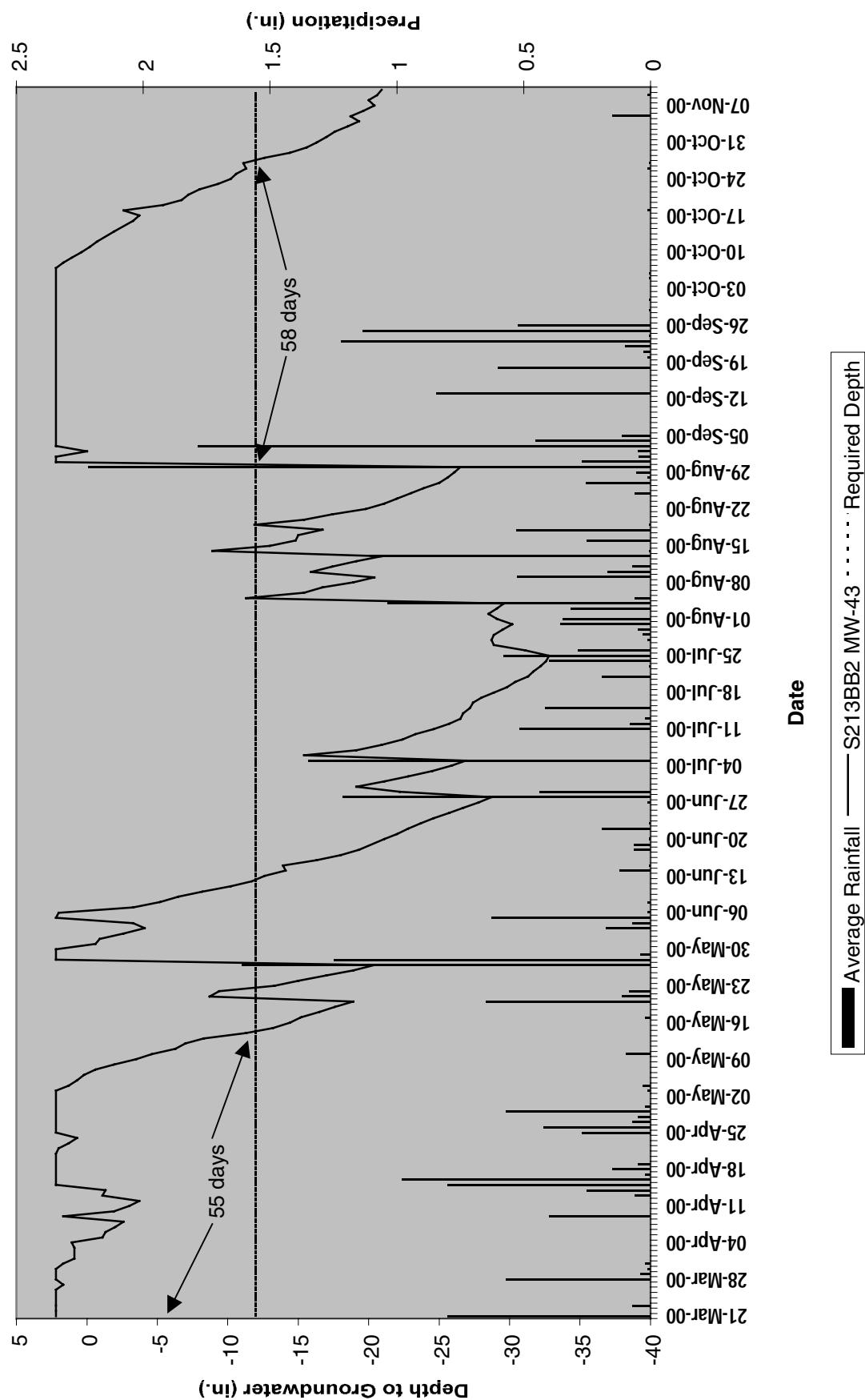
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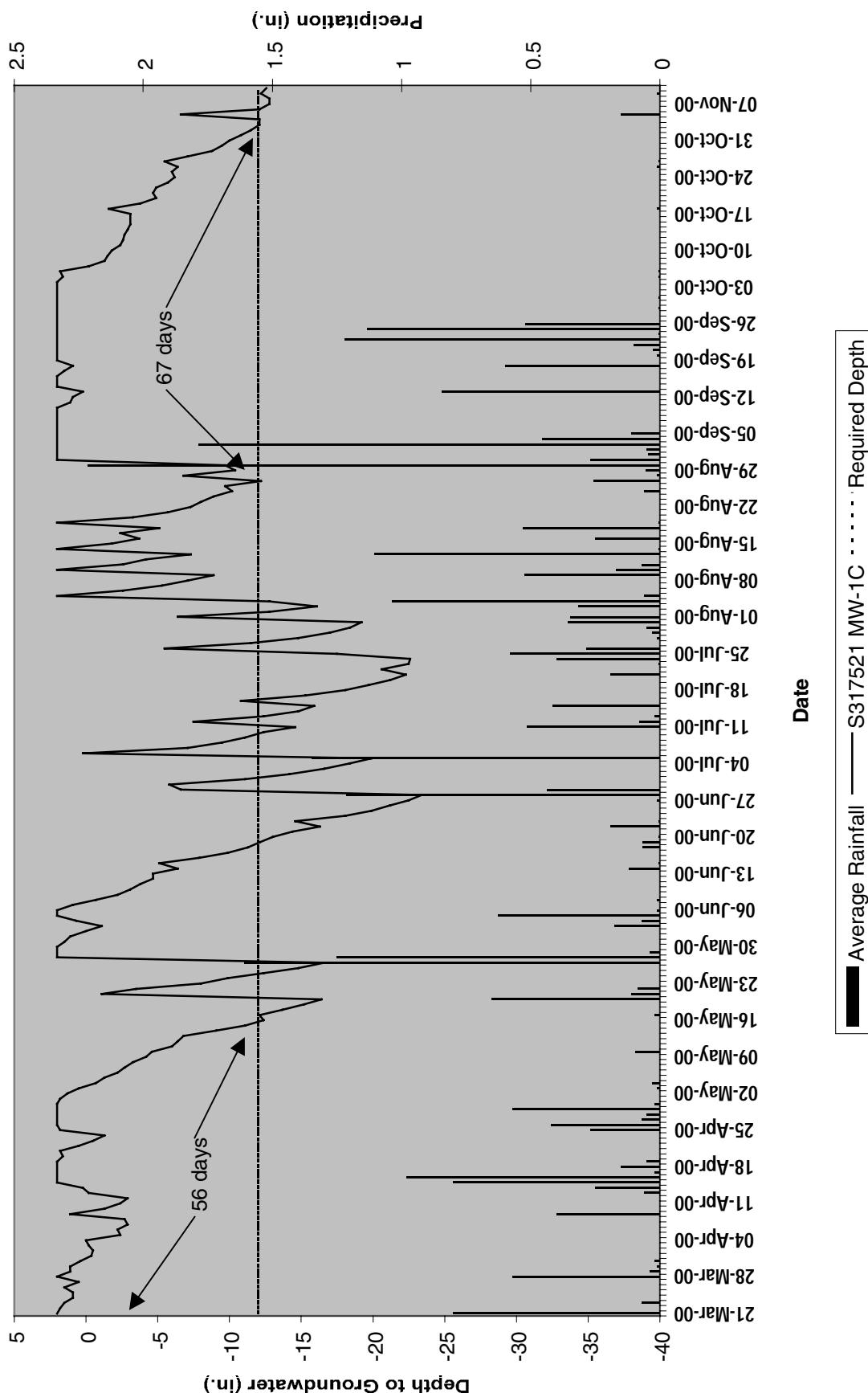
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Mildred Woods MW-43

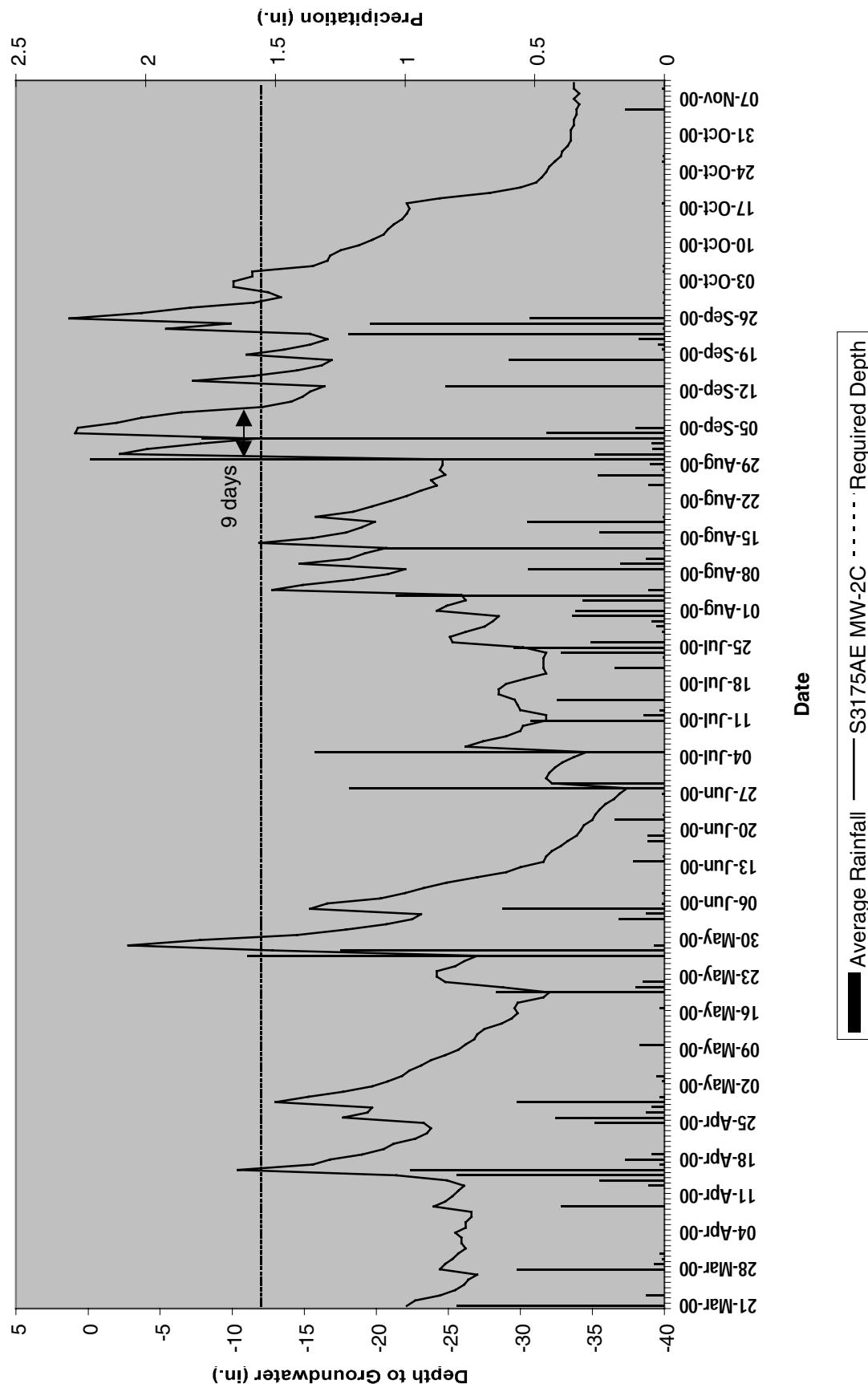


Mildred Woods MW-1C

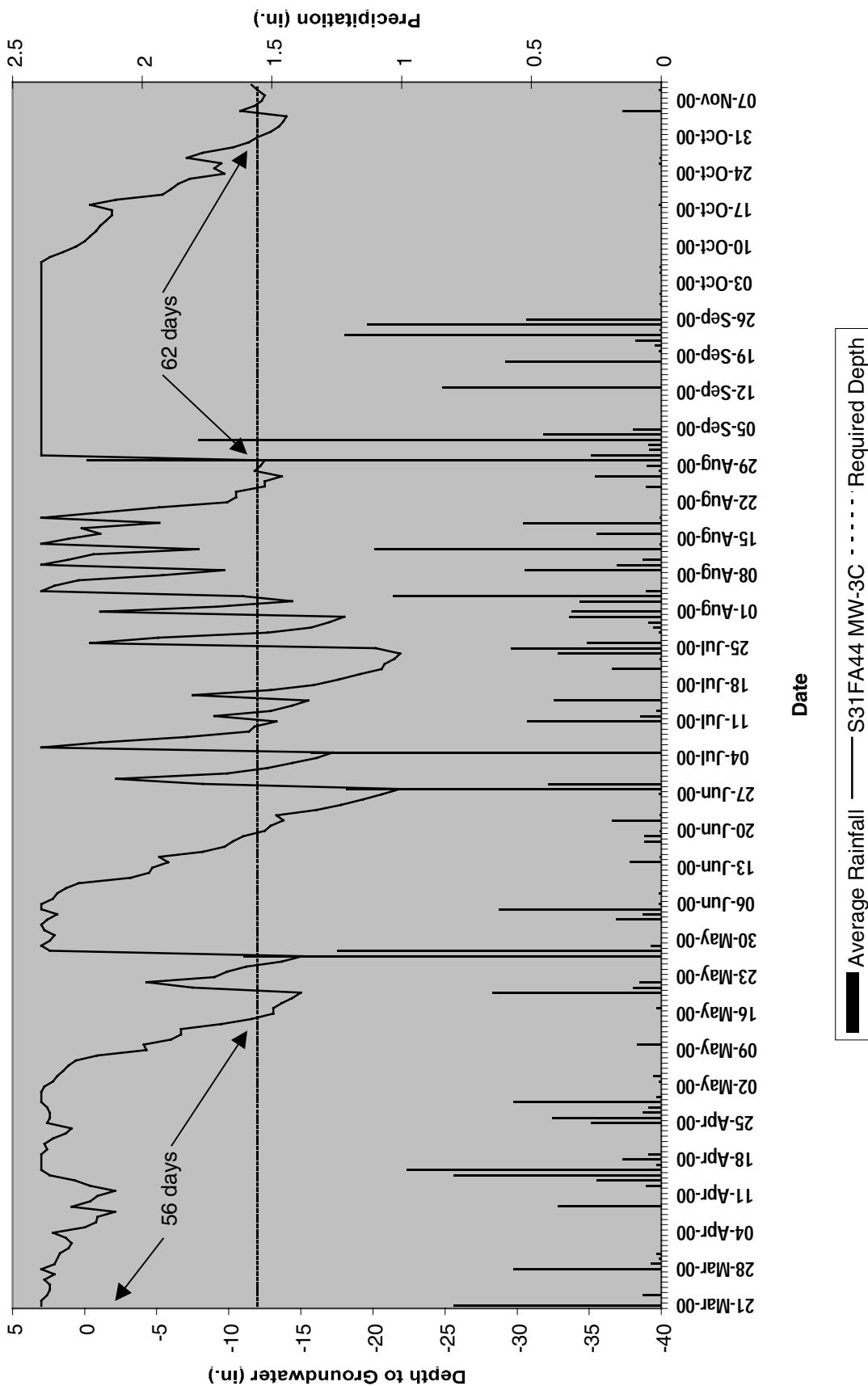


Average Rainfall ——— S317521 MW-1C ······ Required Depth

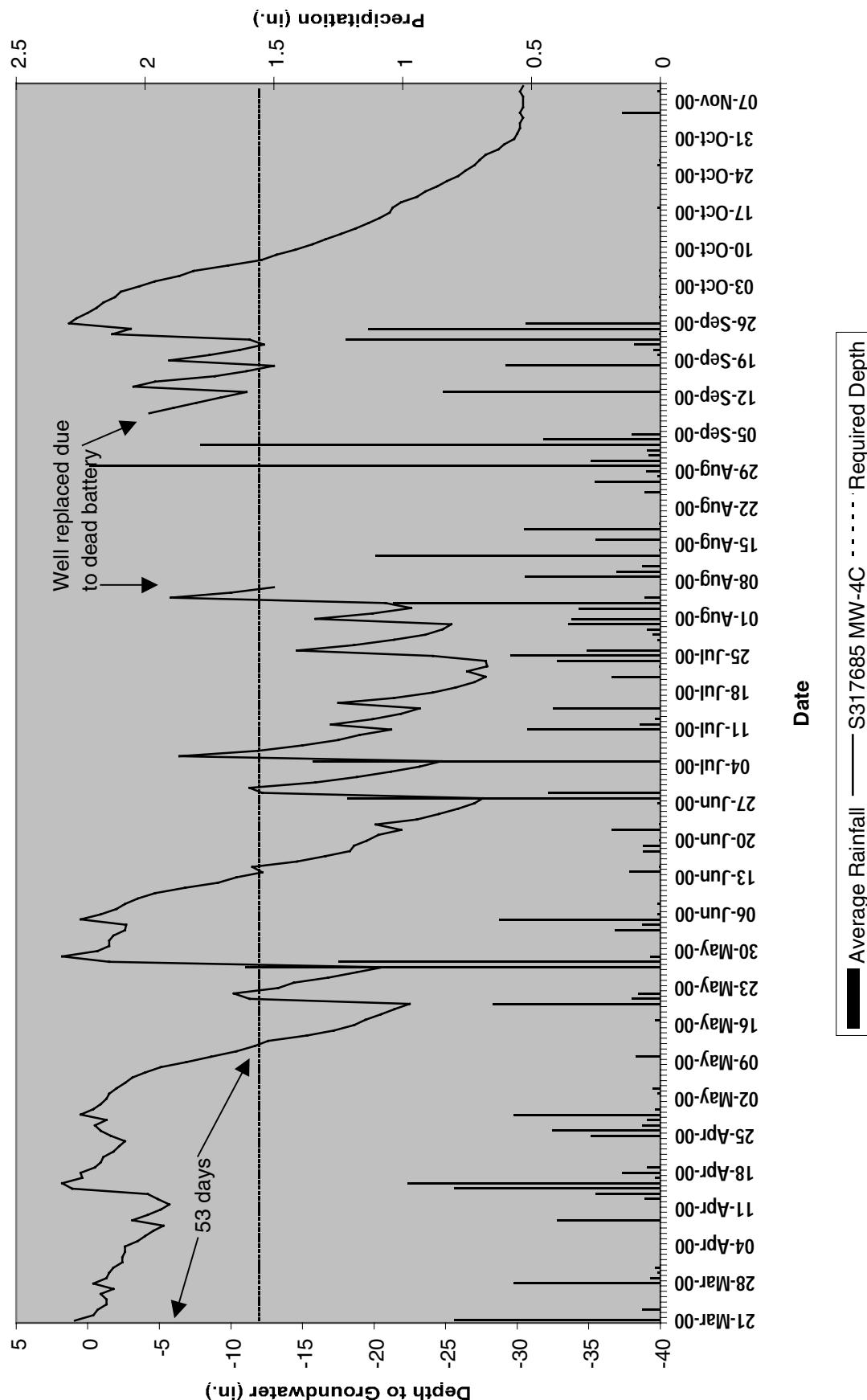
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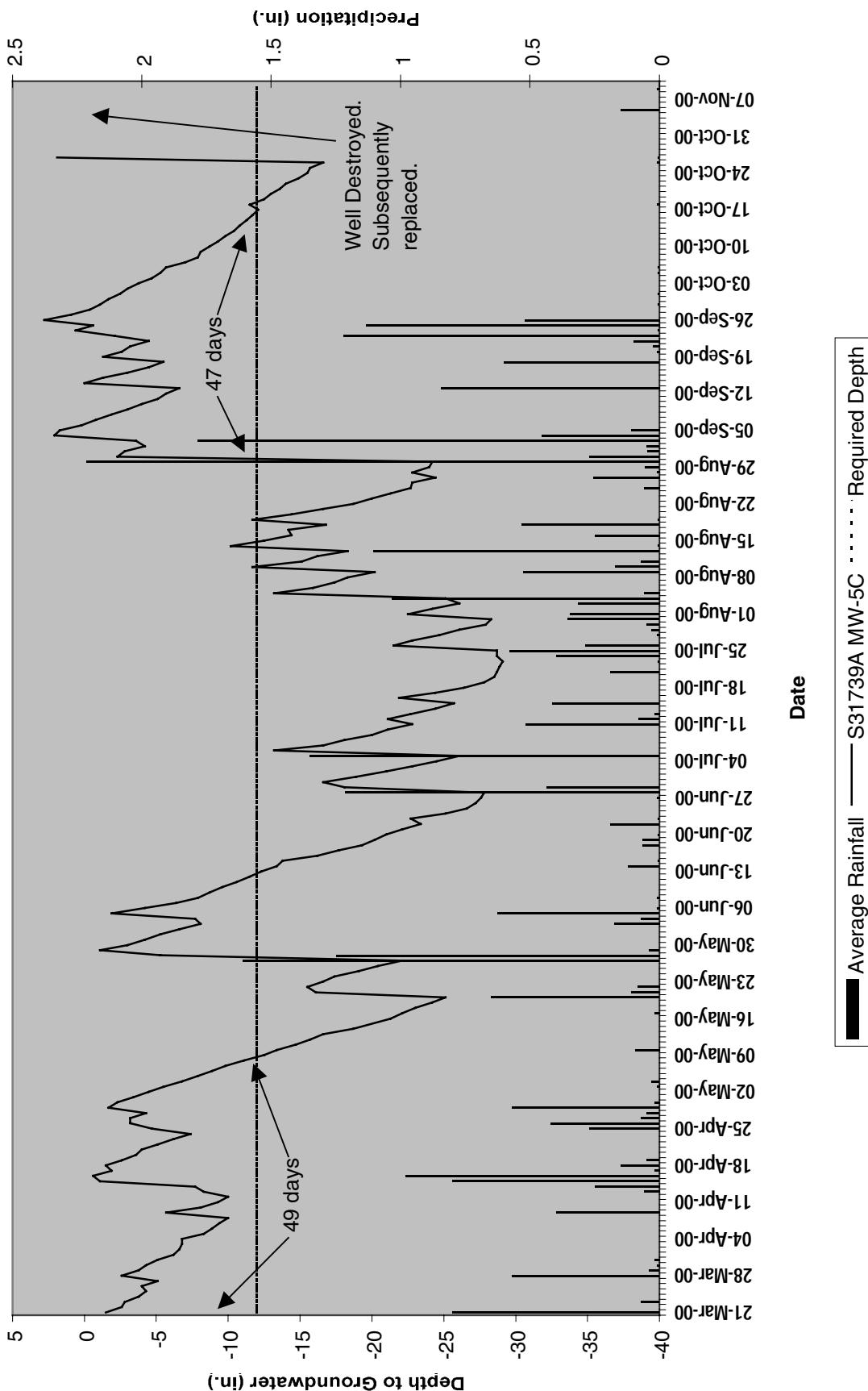
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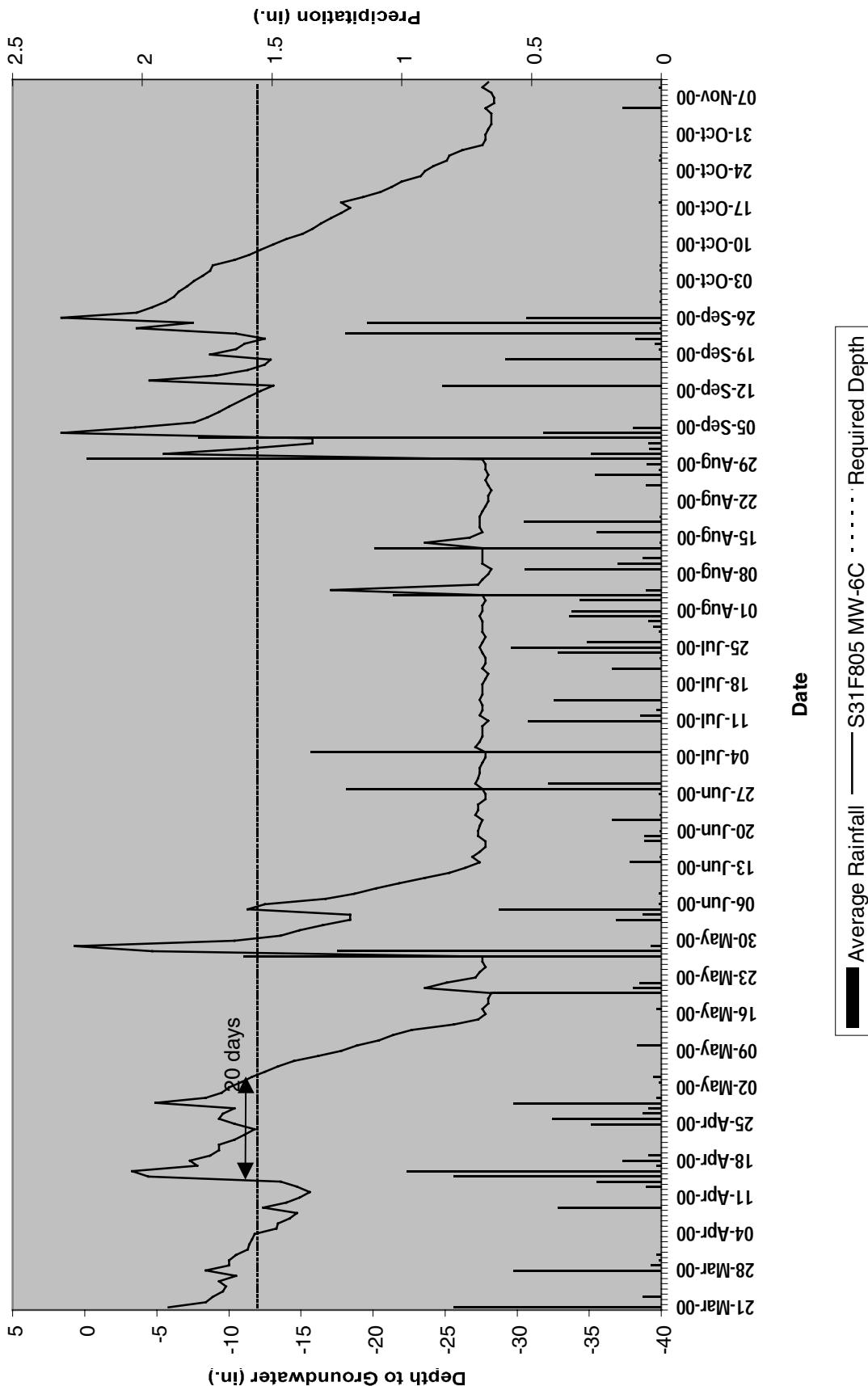
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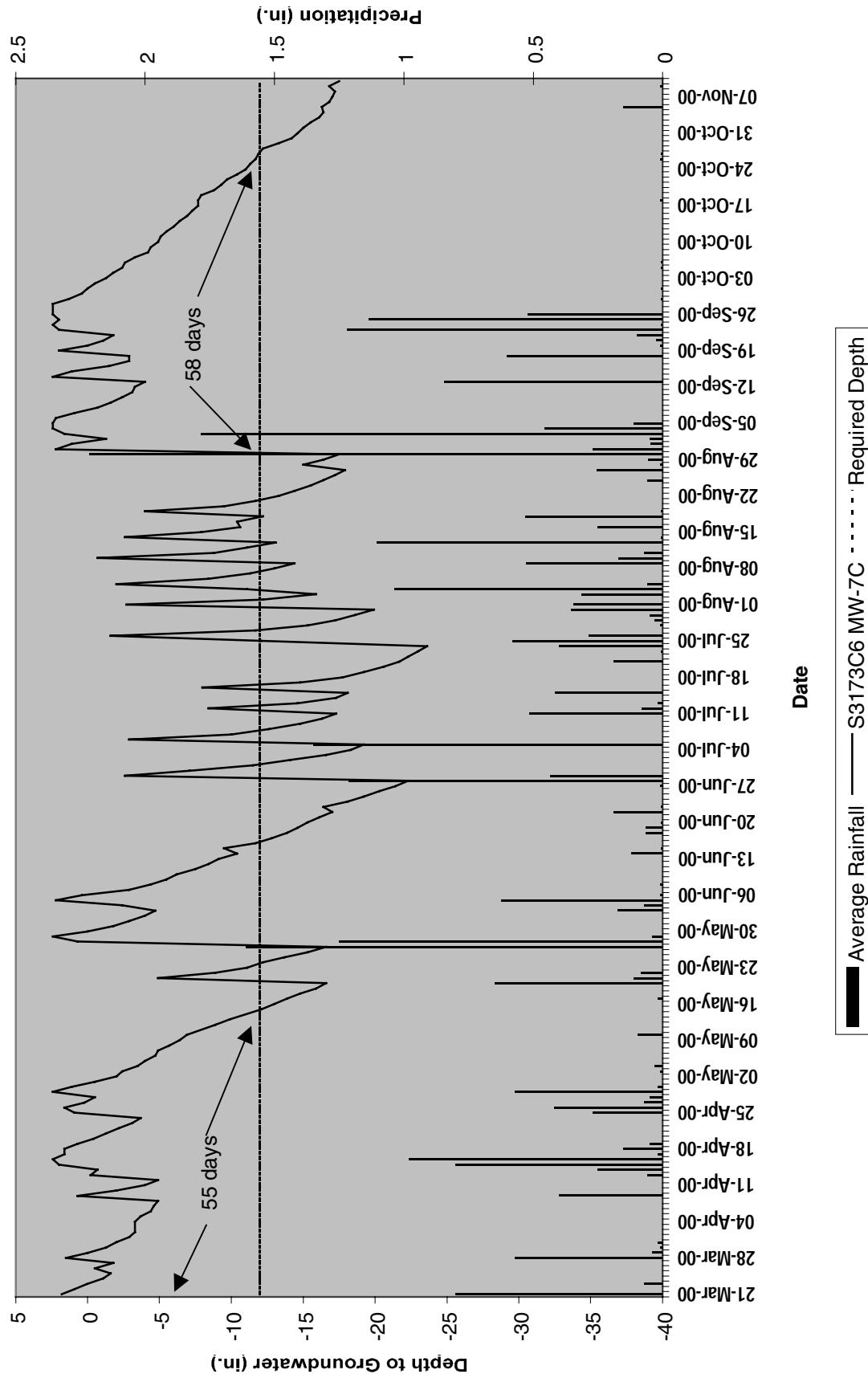
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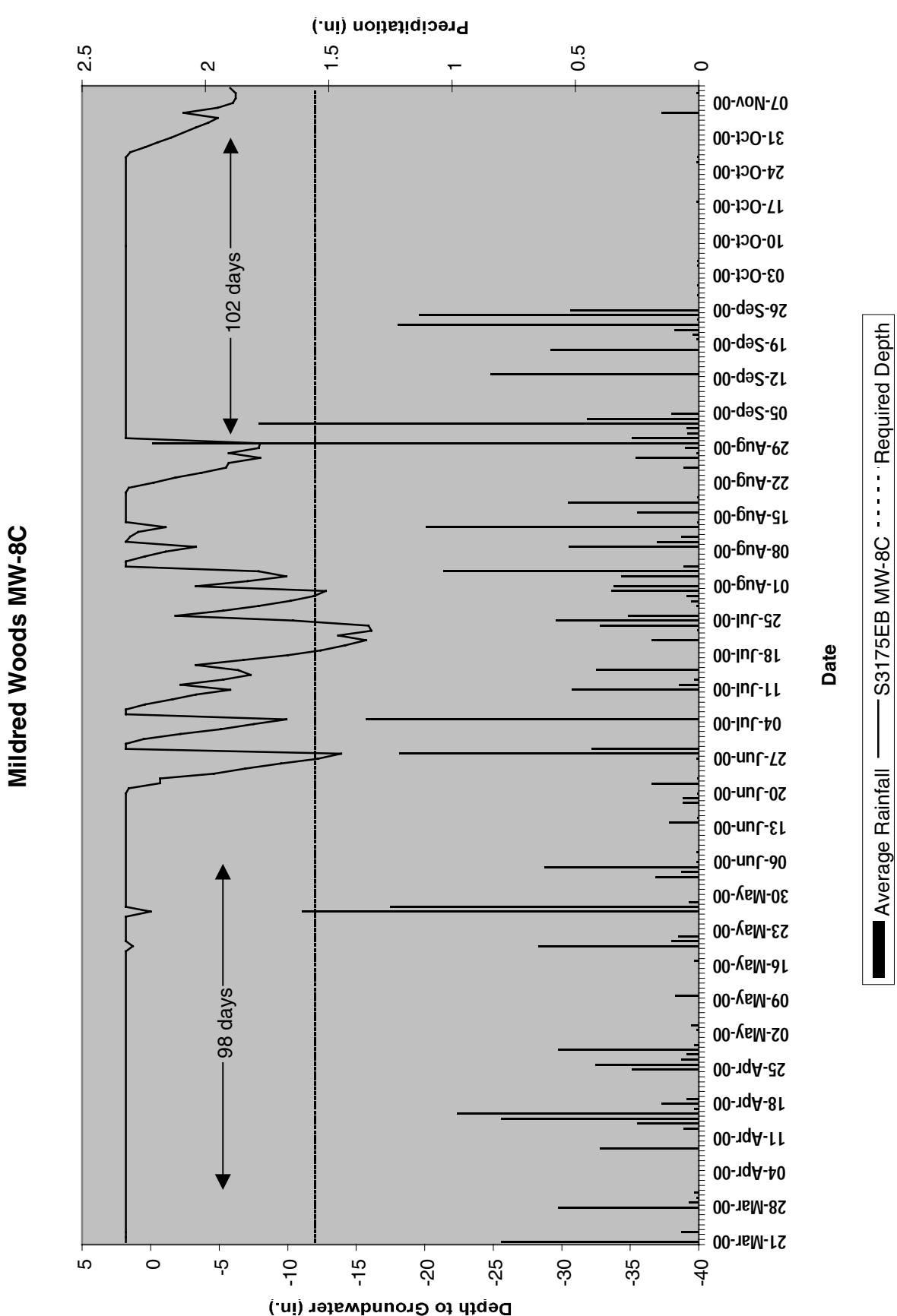


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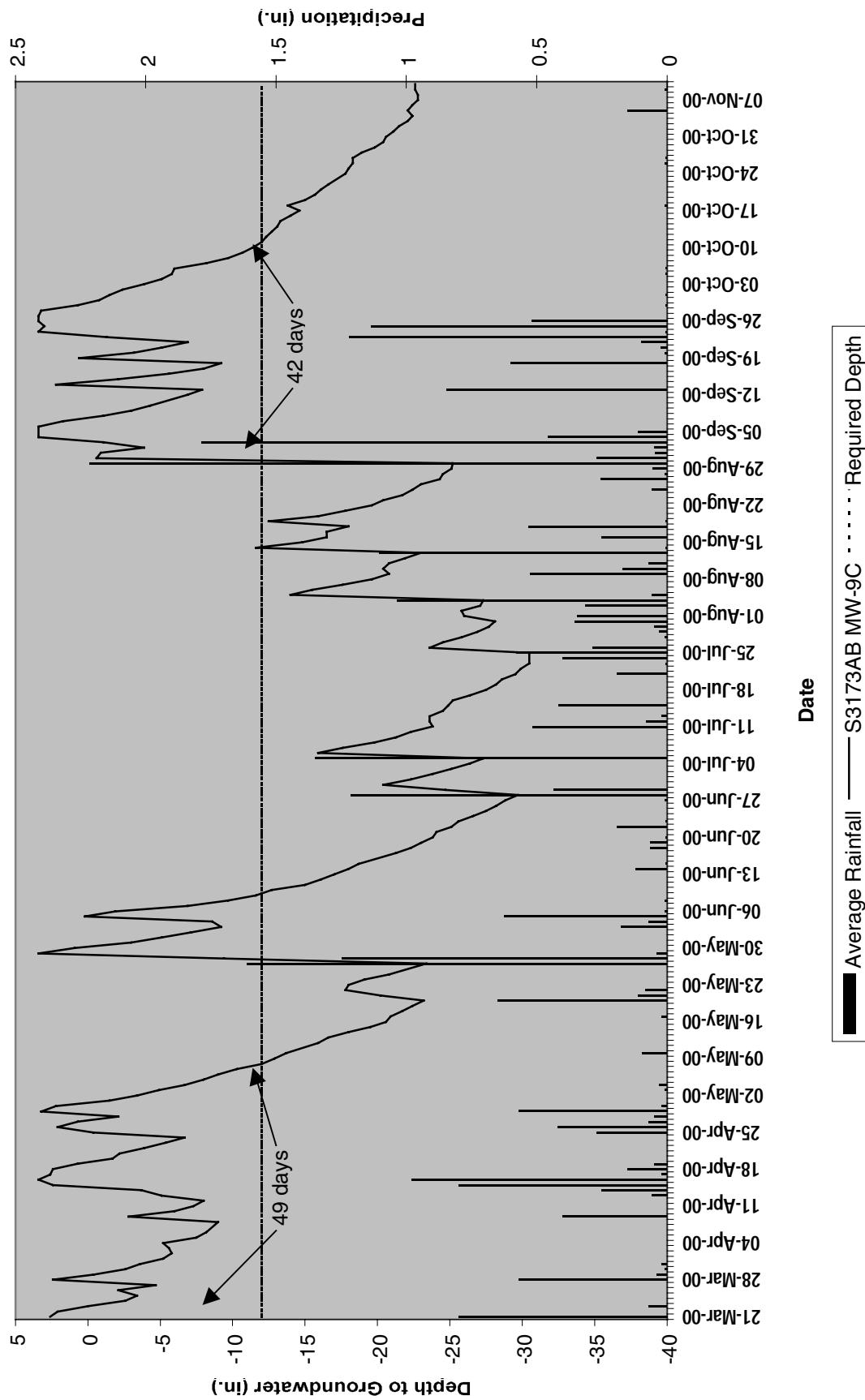


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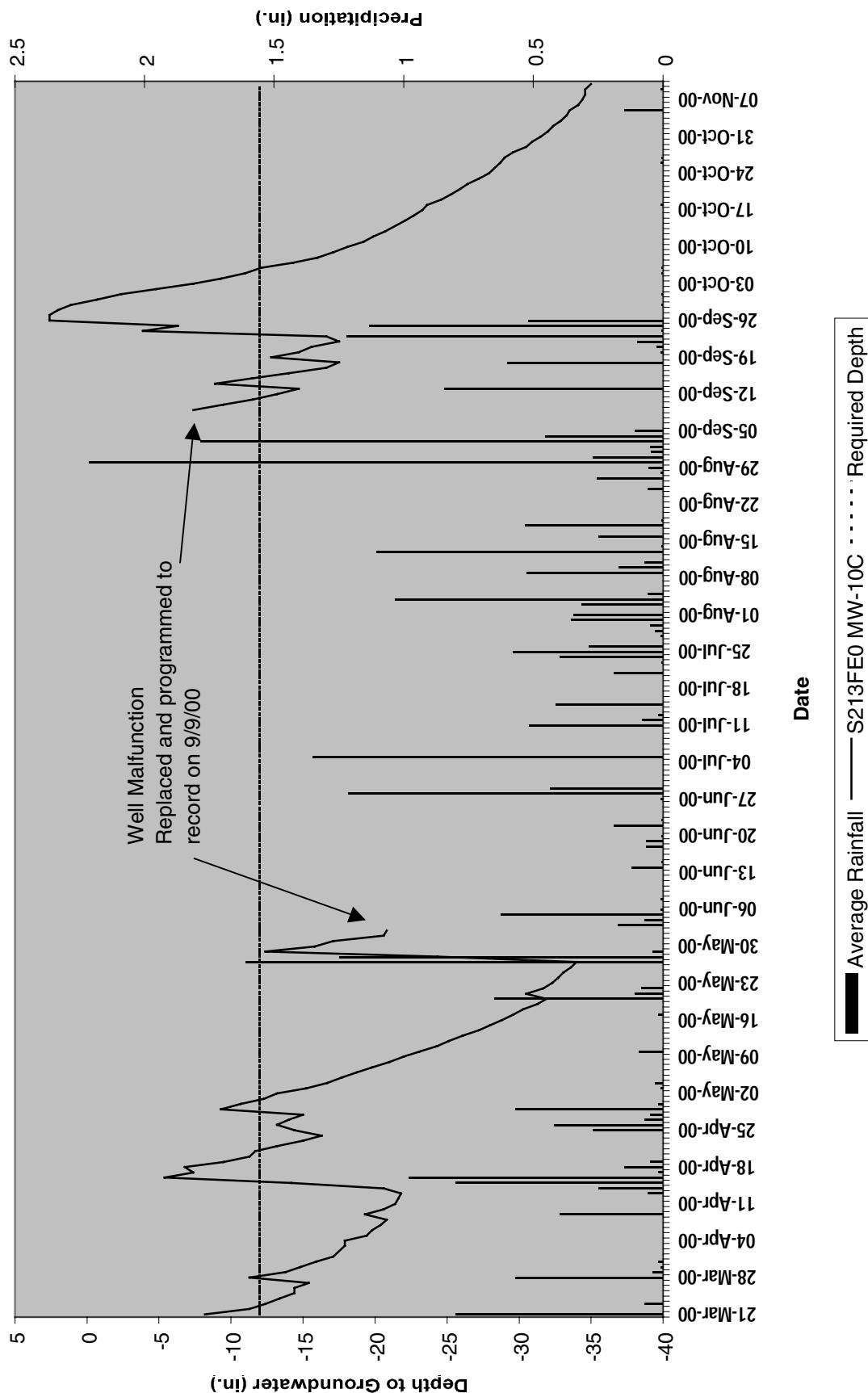
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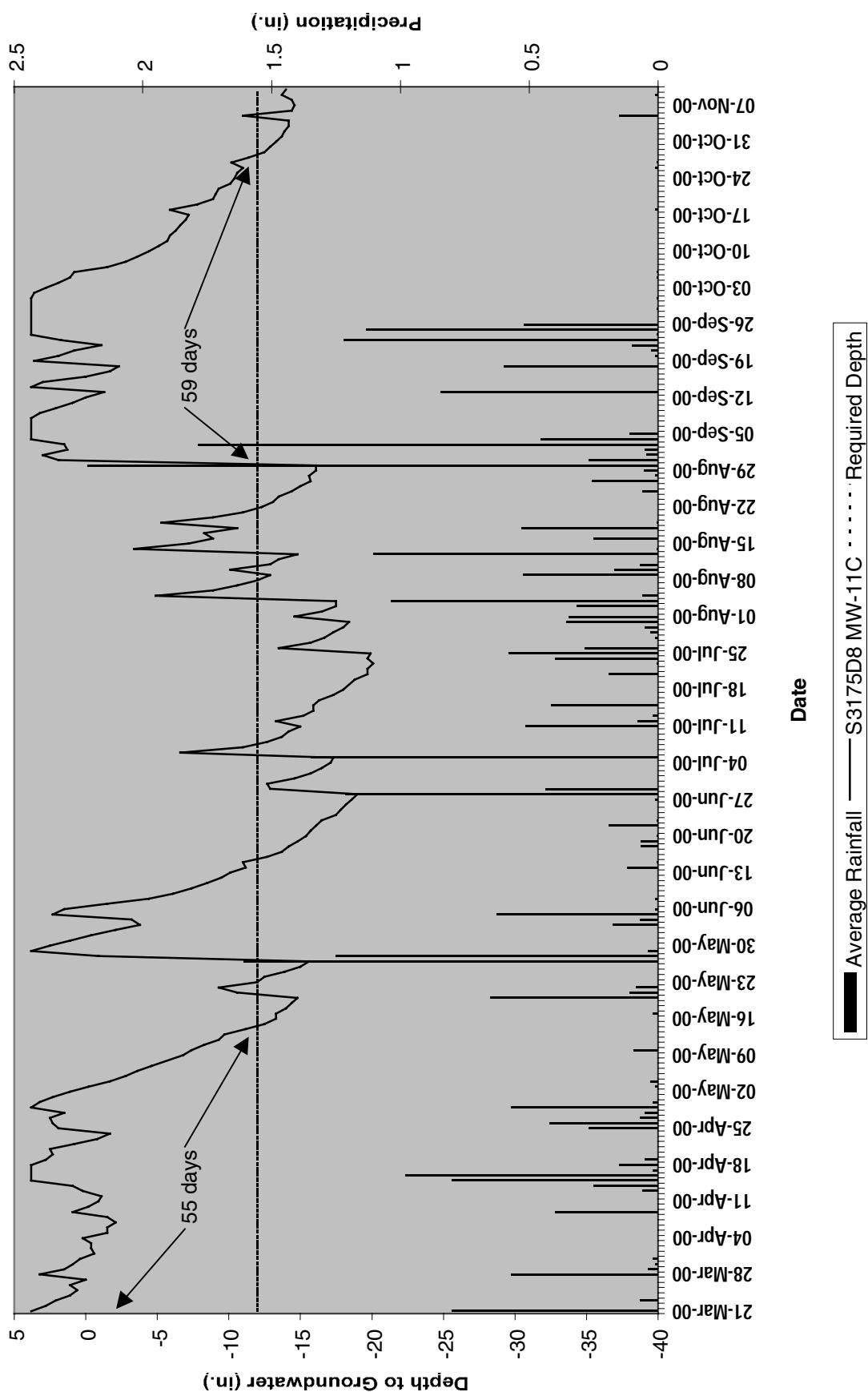
■ Average Rainfall — S3173AB MW-9C · · · · Required Depth

Date

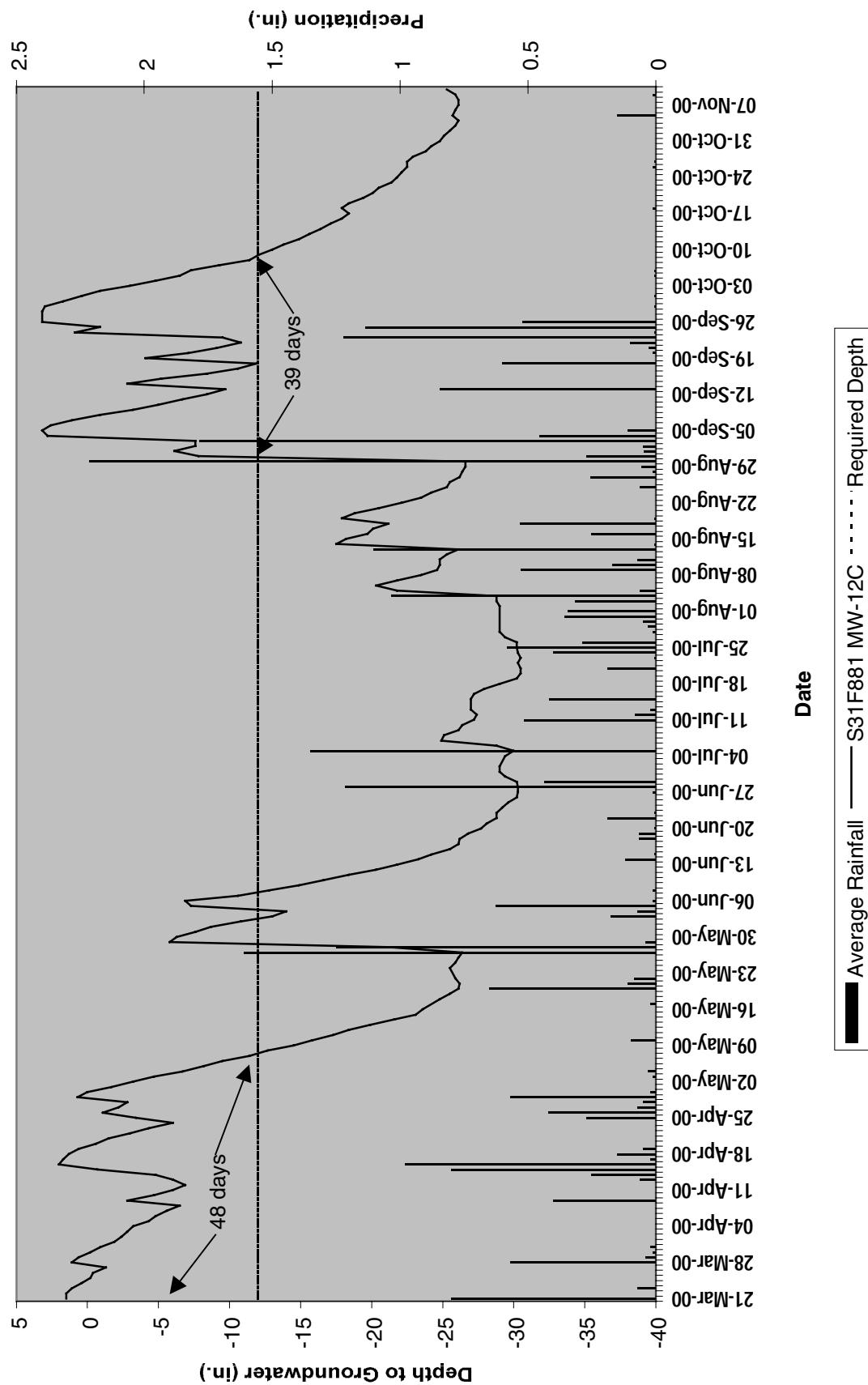
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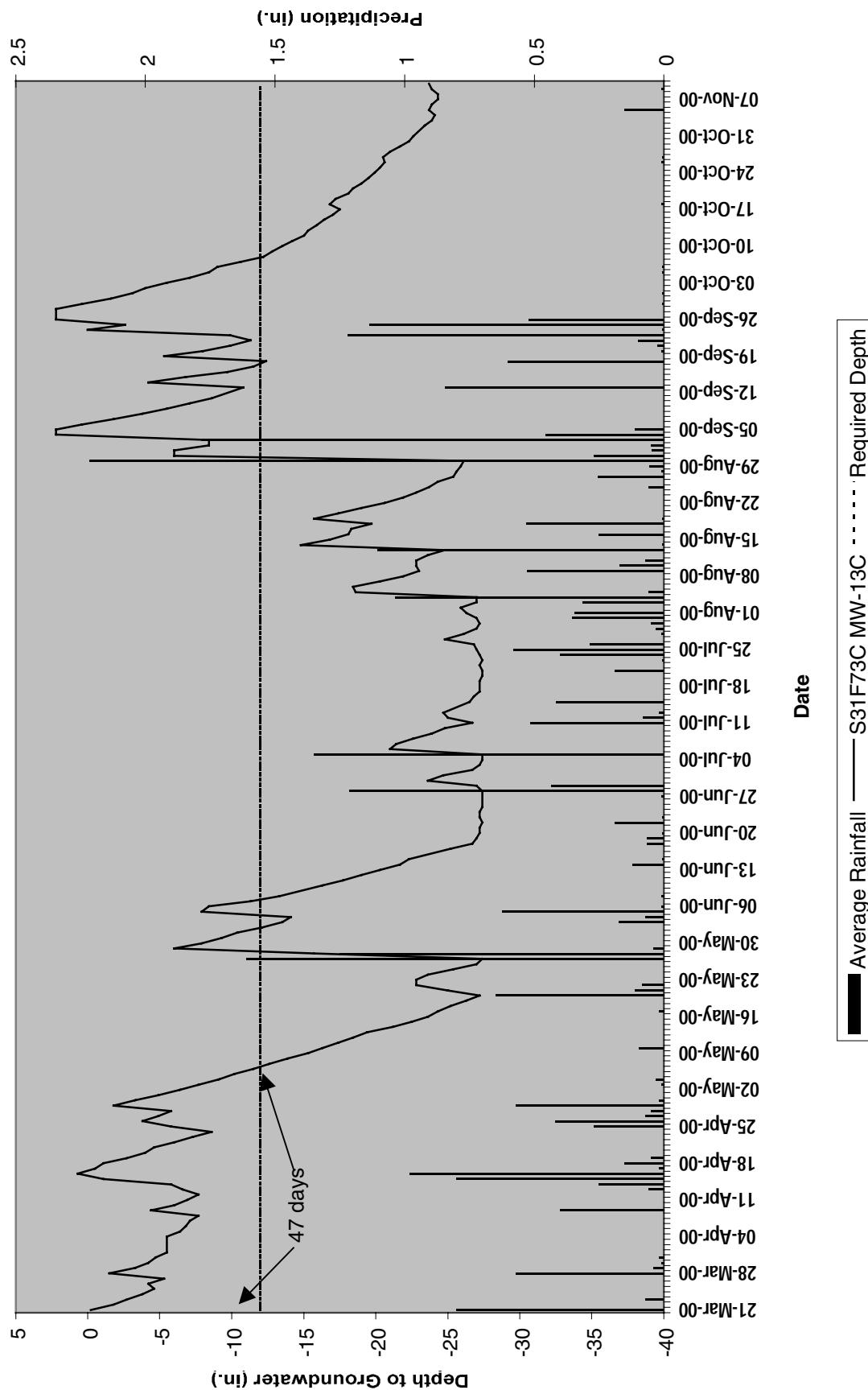
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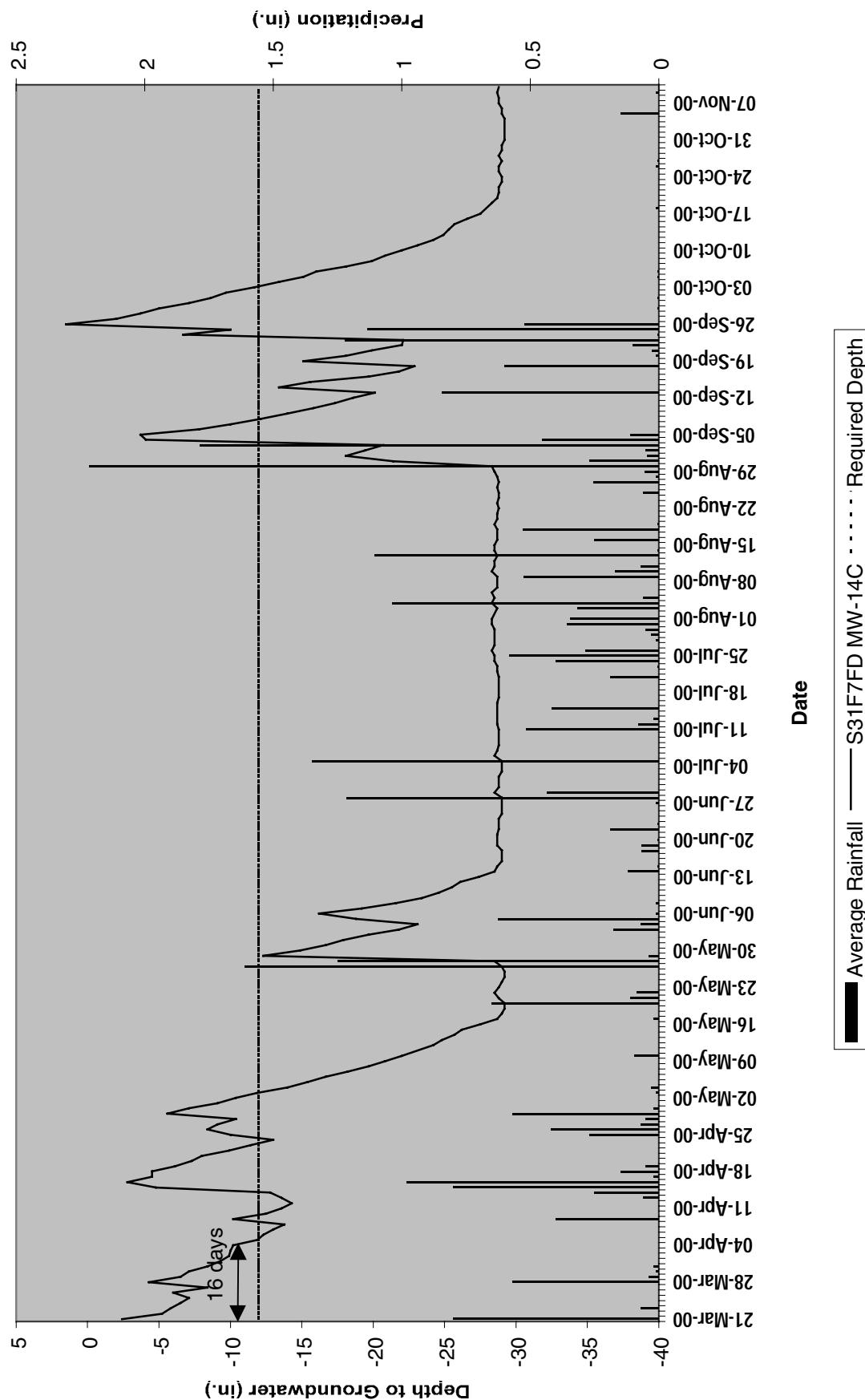
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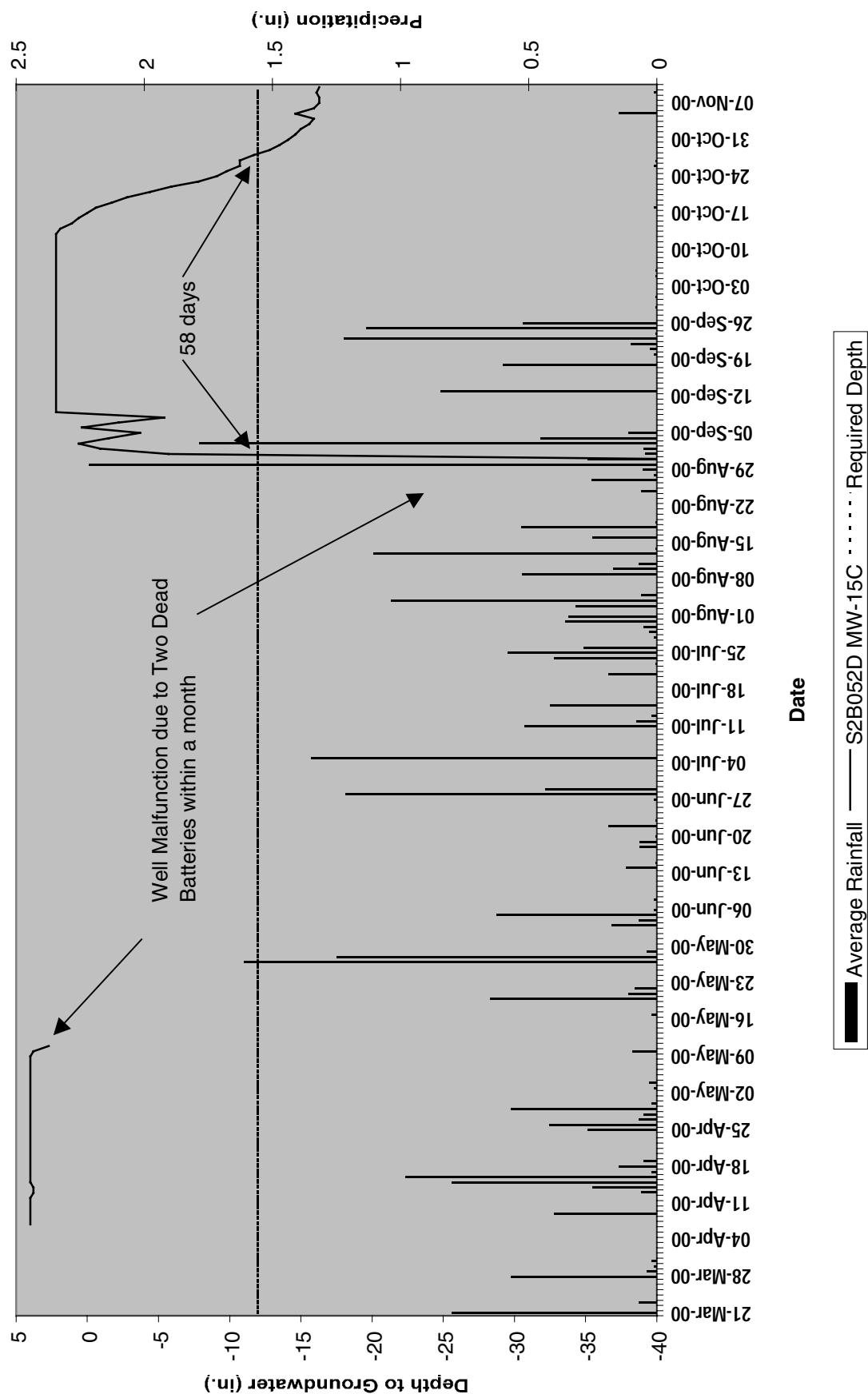
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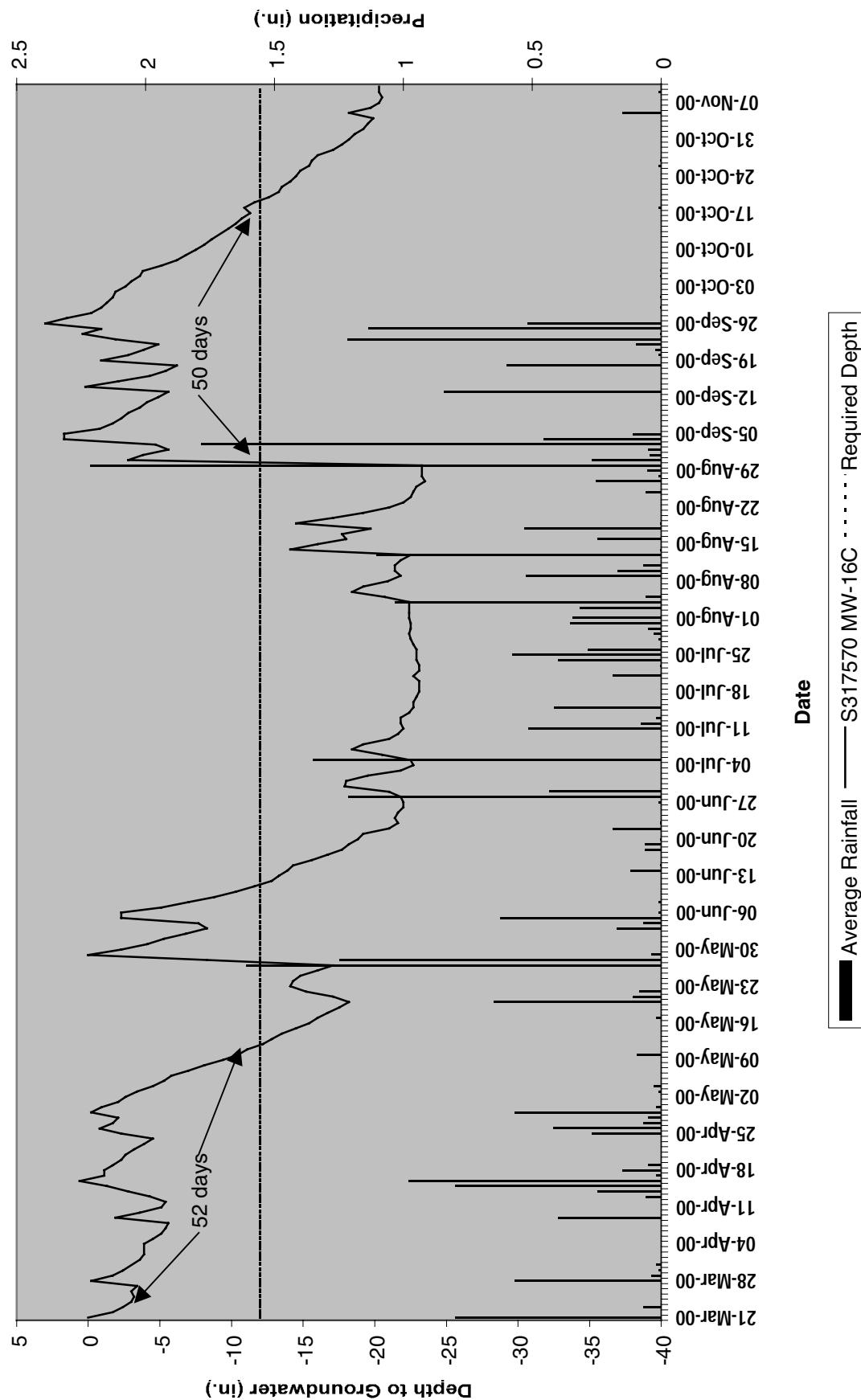
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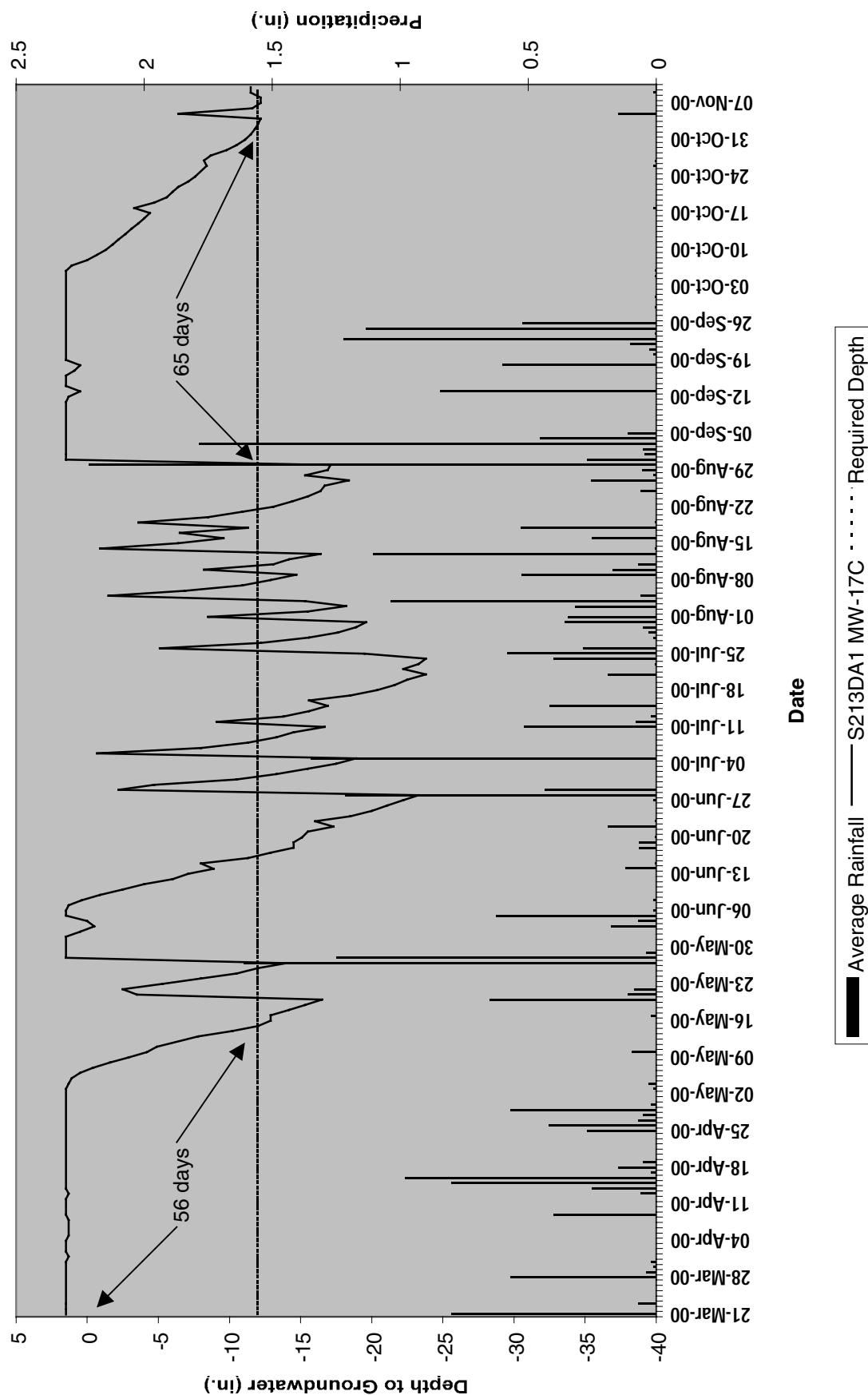
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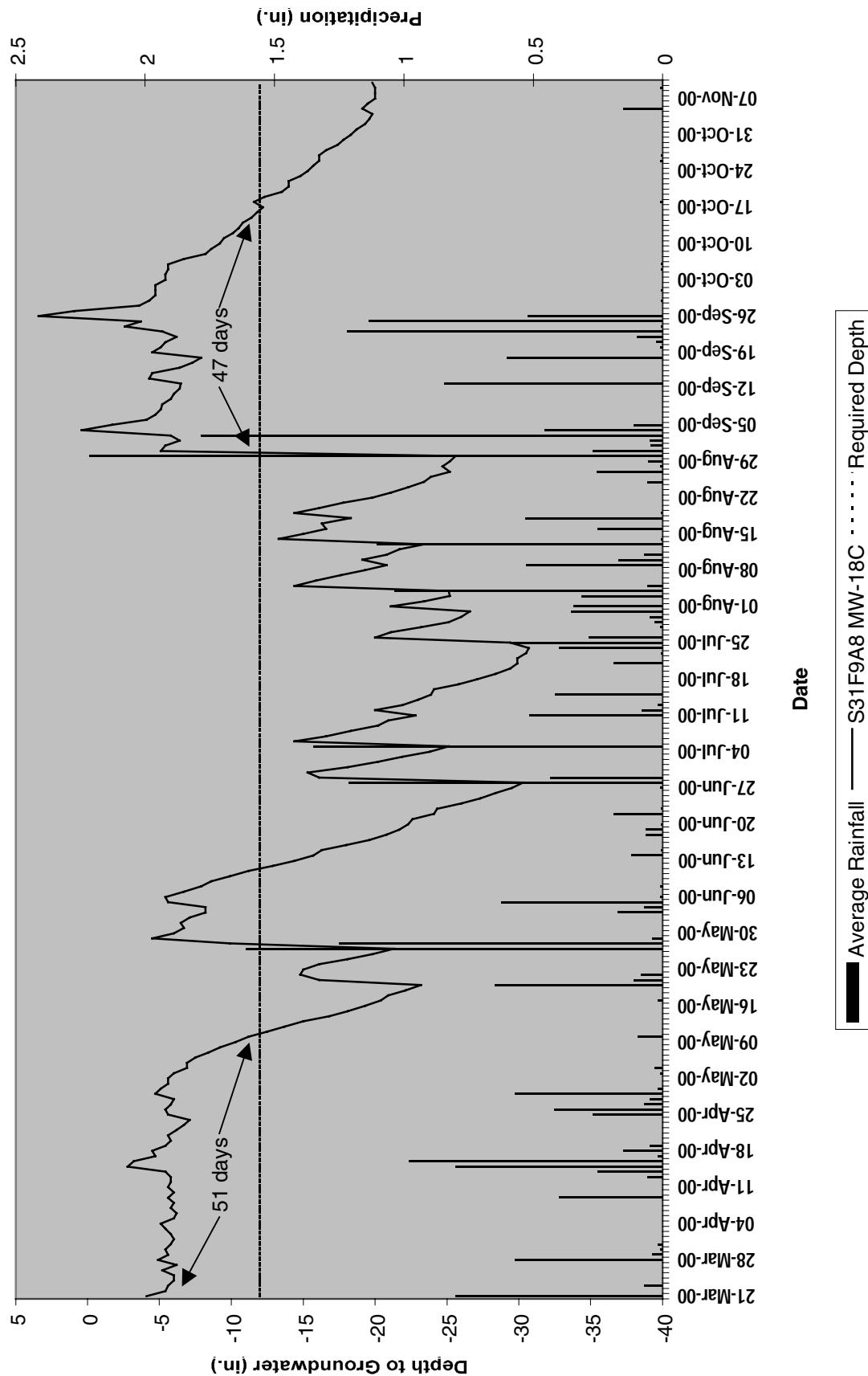
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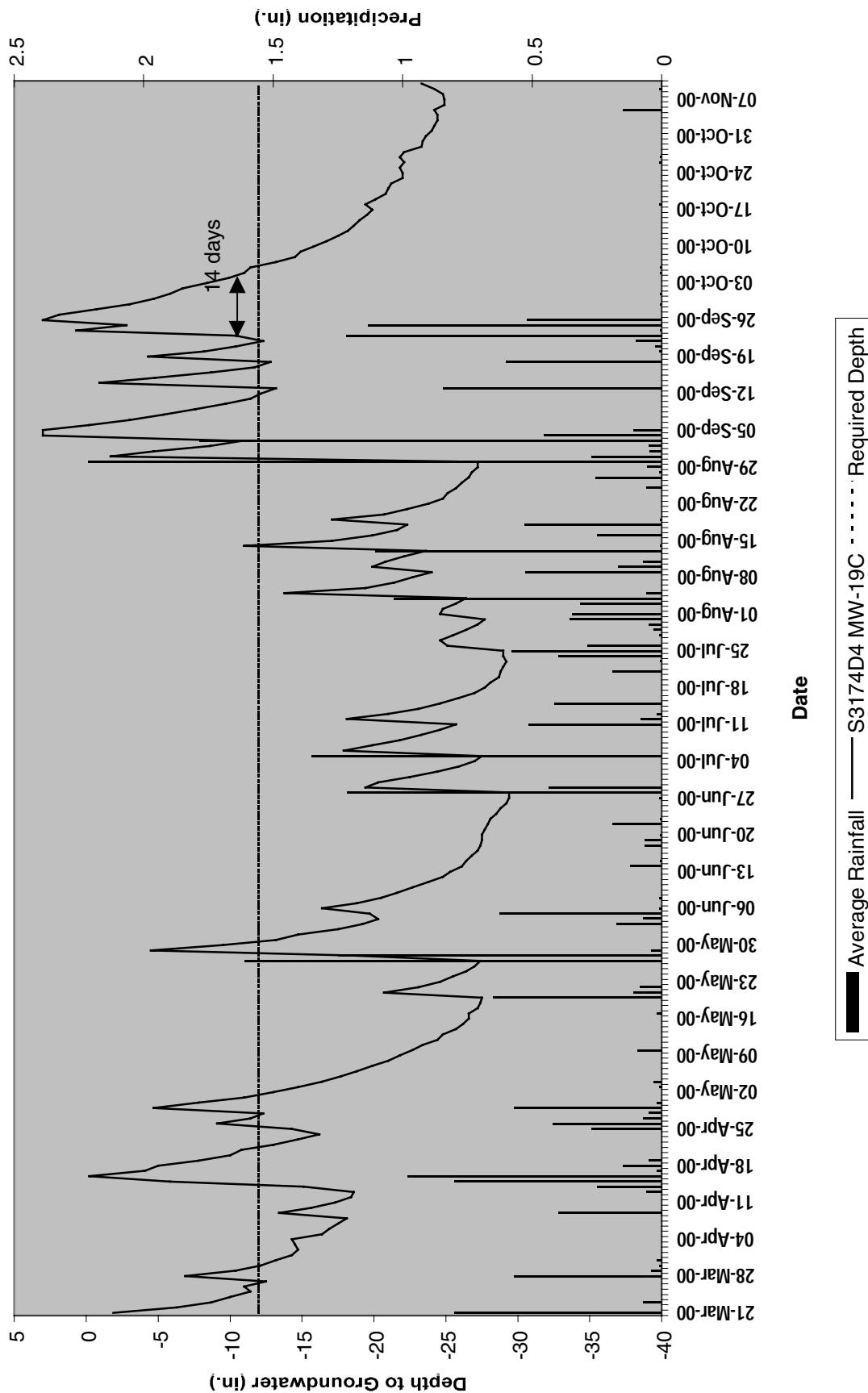
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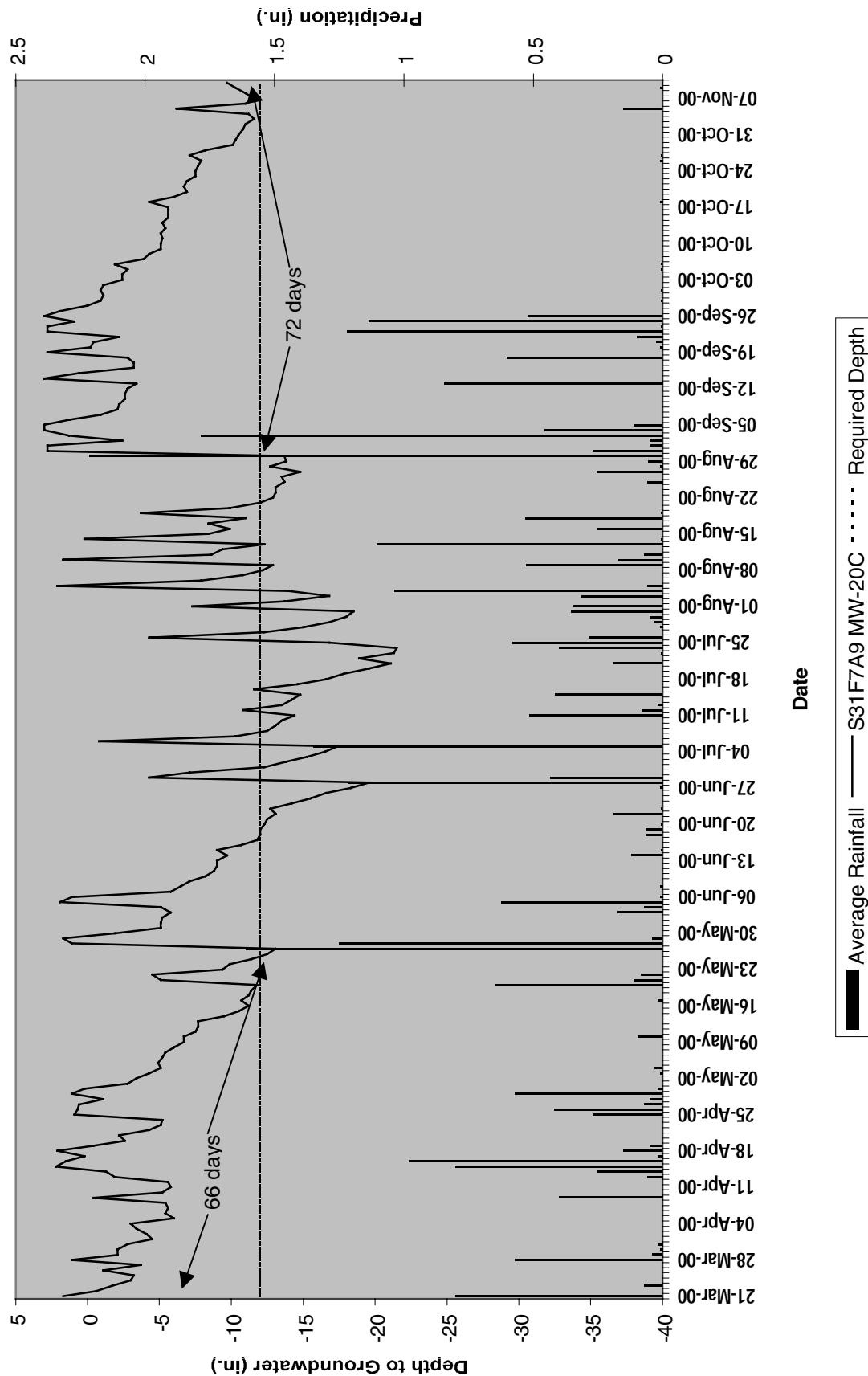
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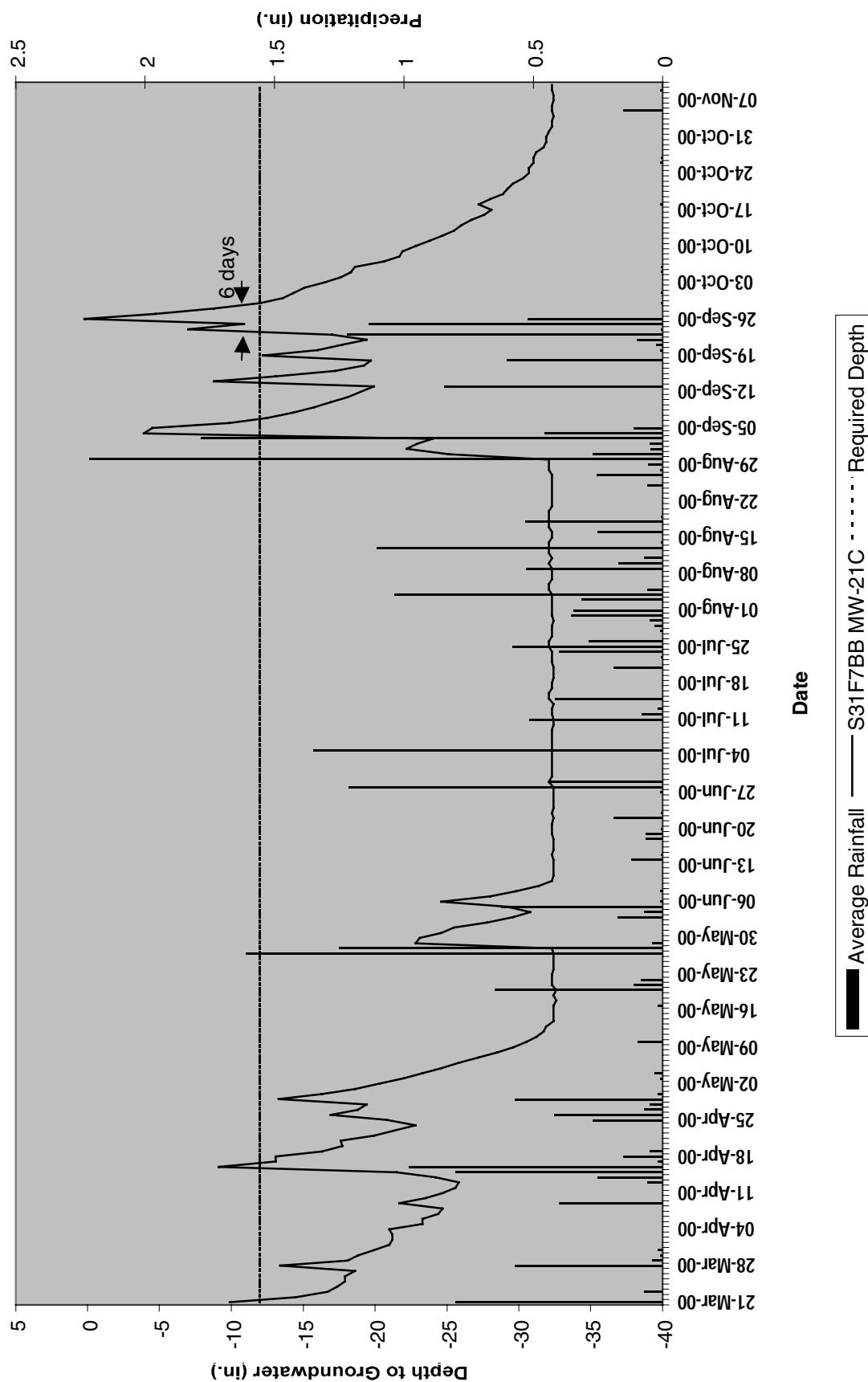
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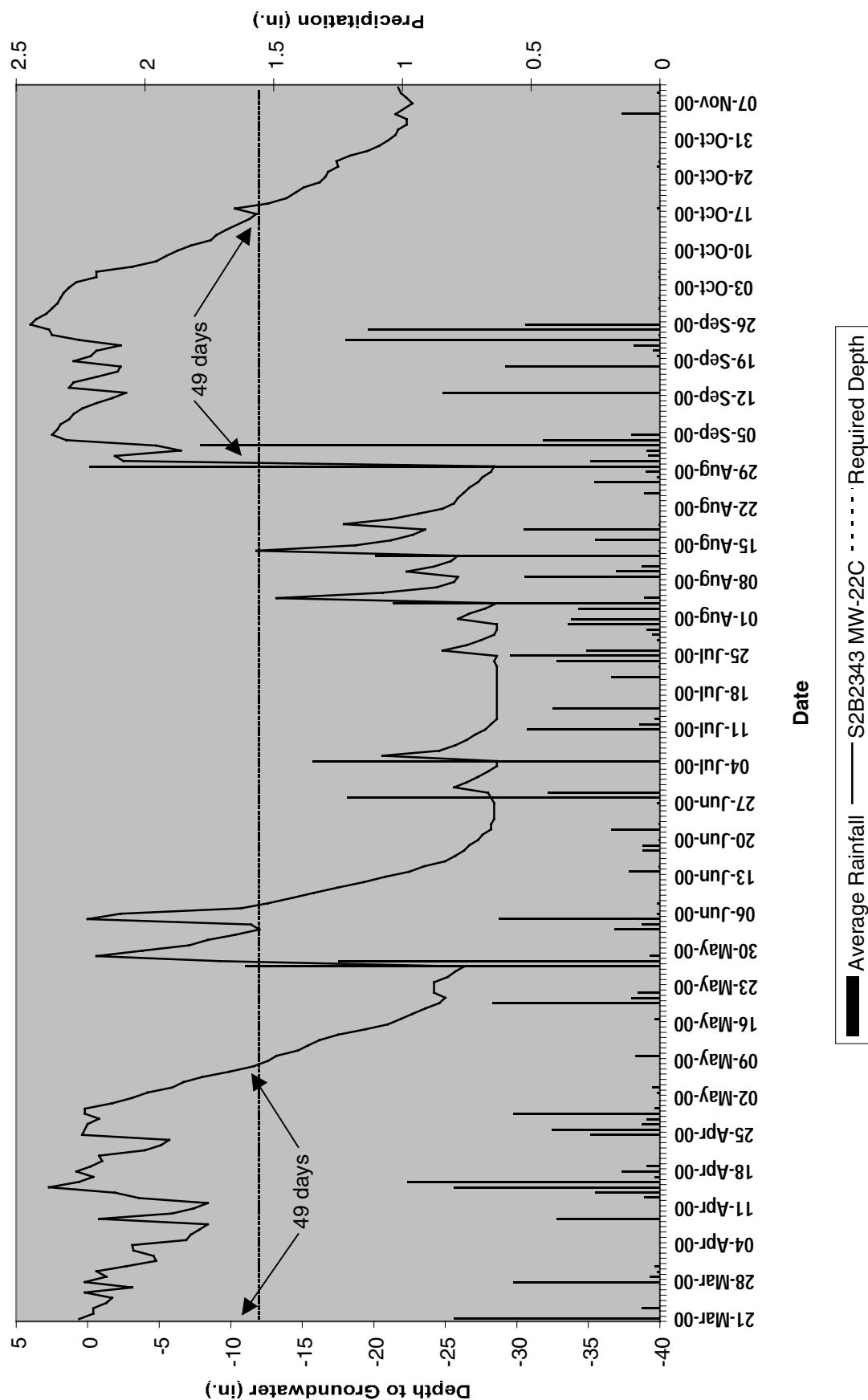
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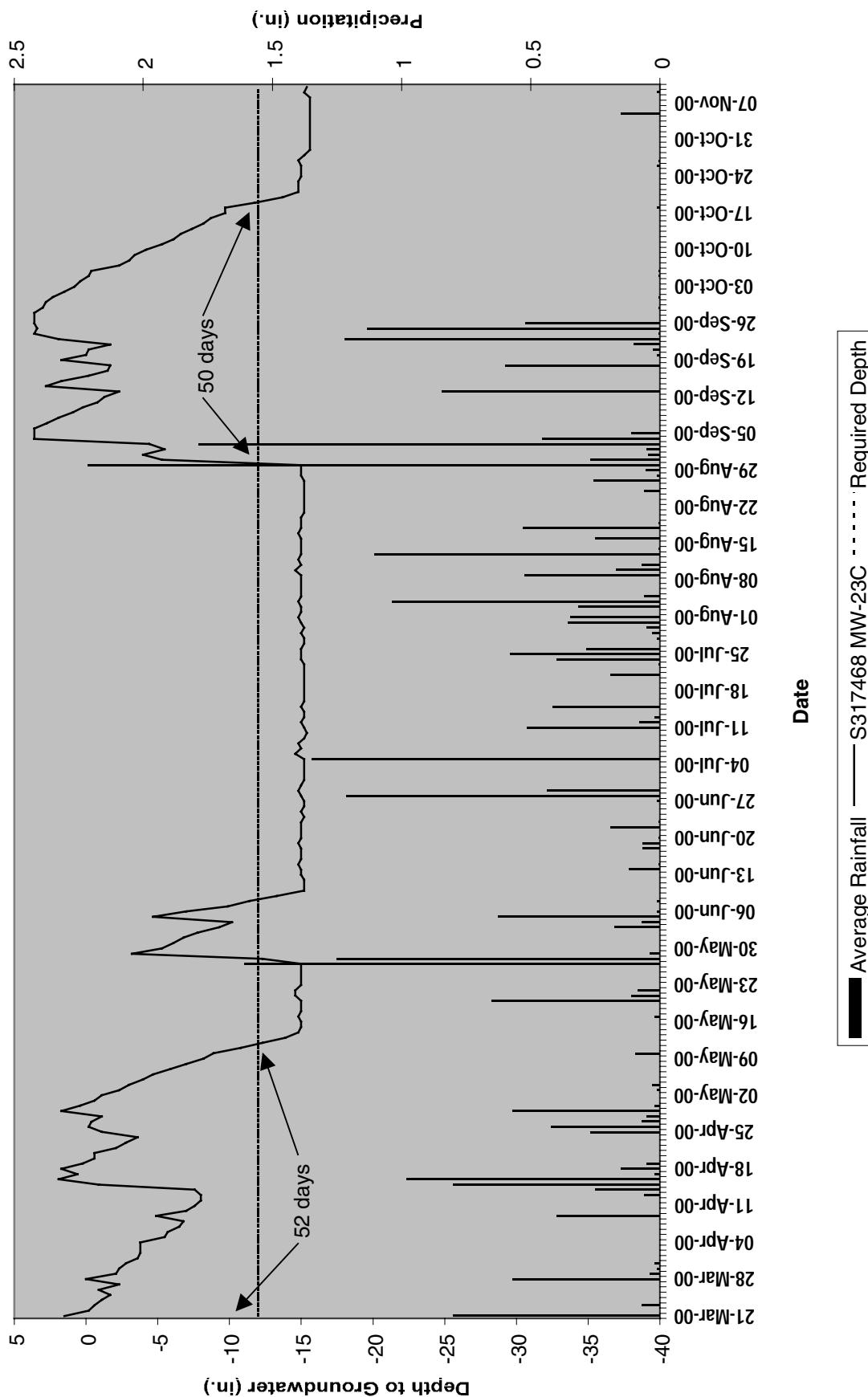
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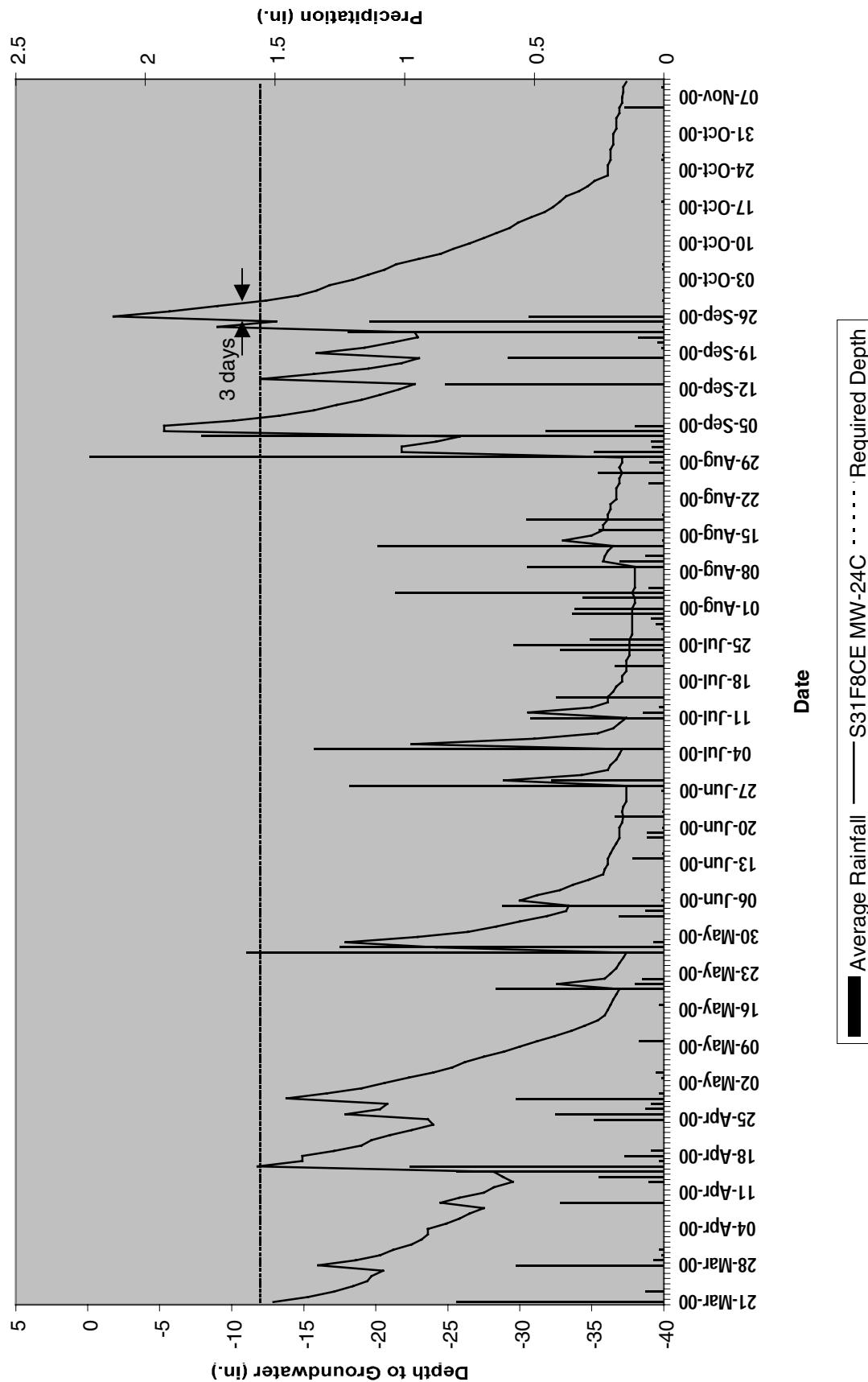
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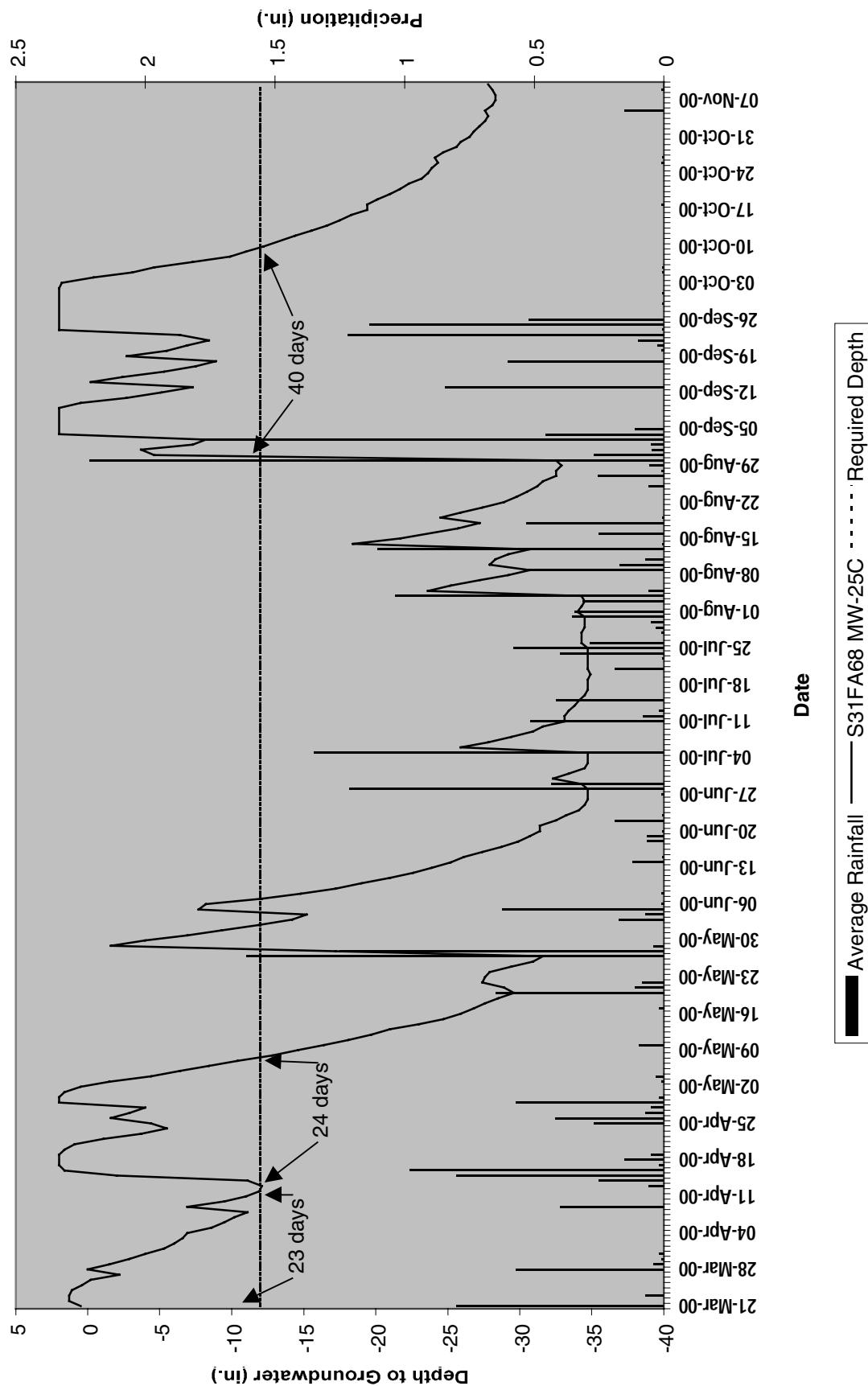
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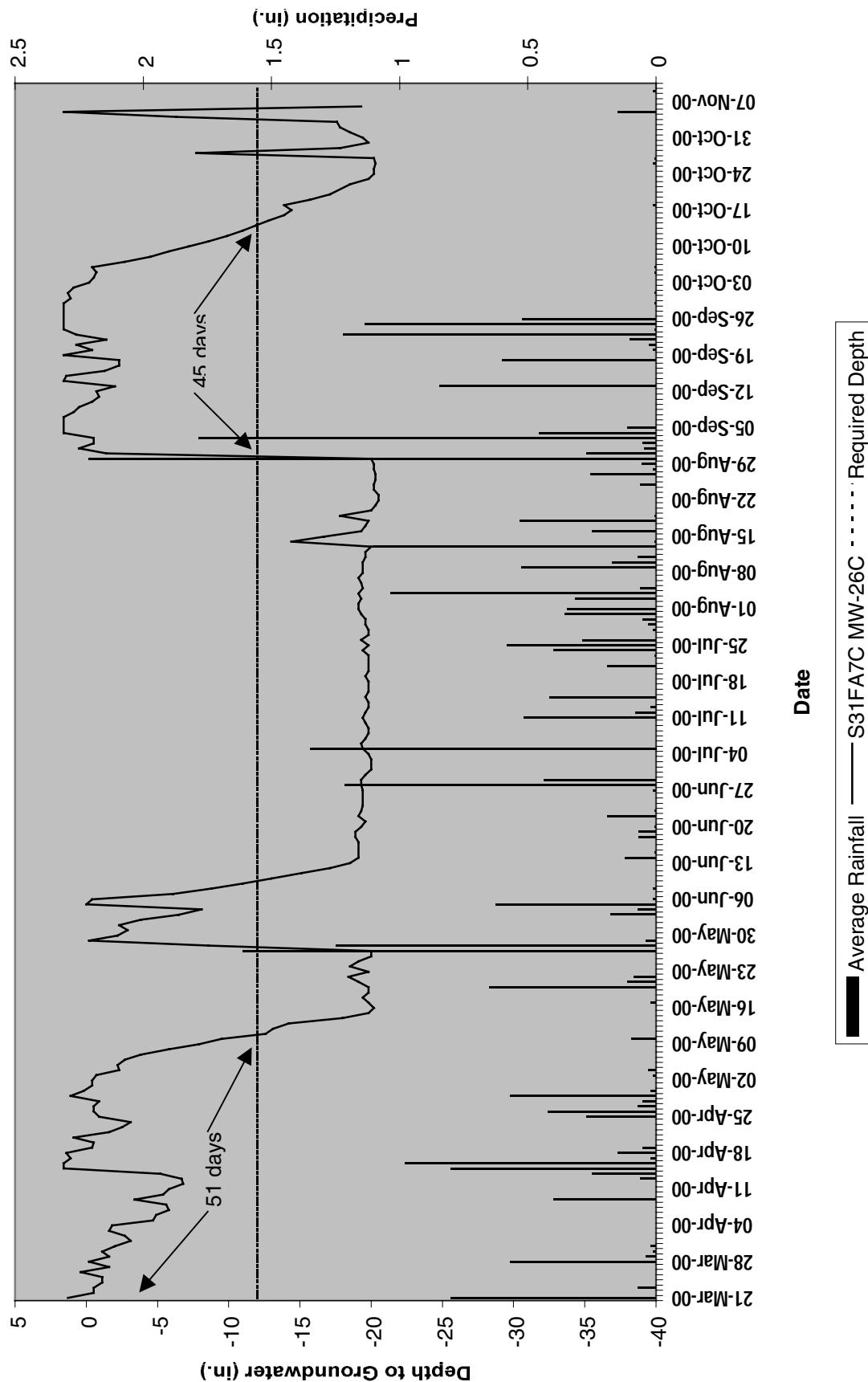
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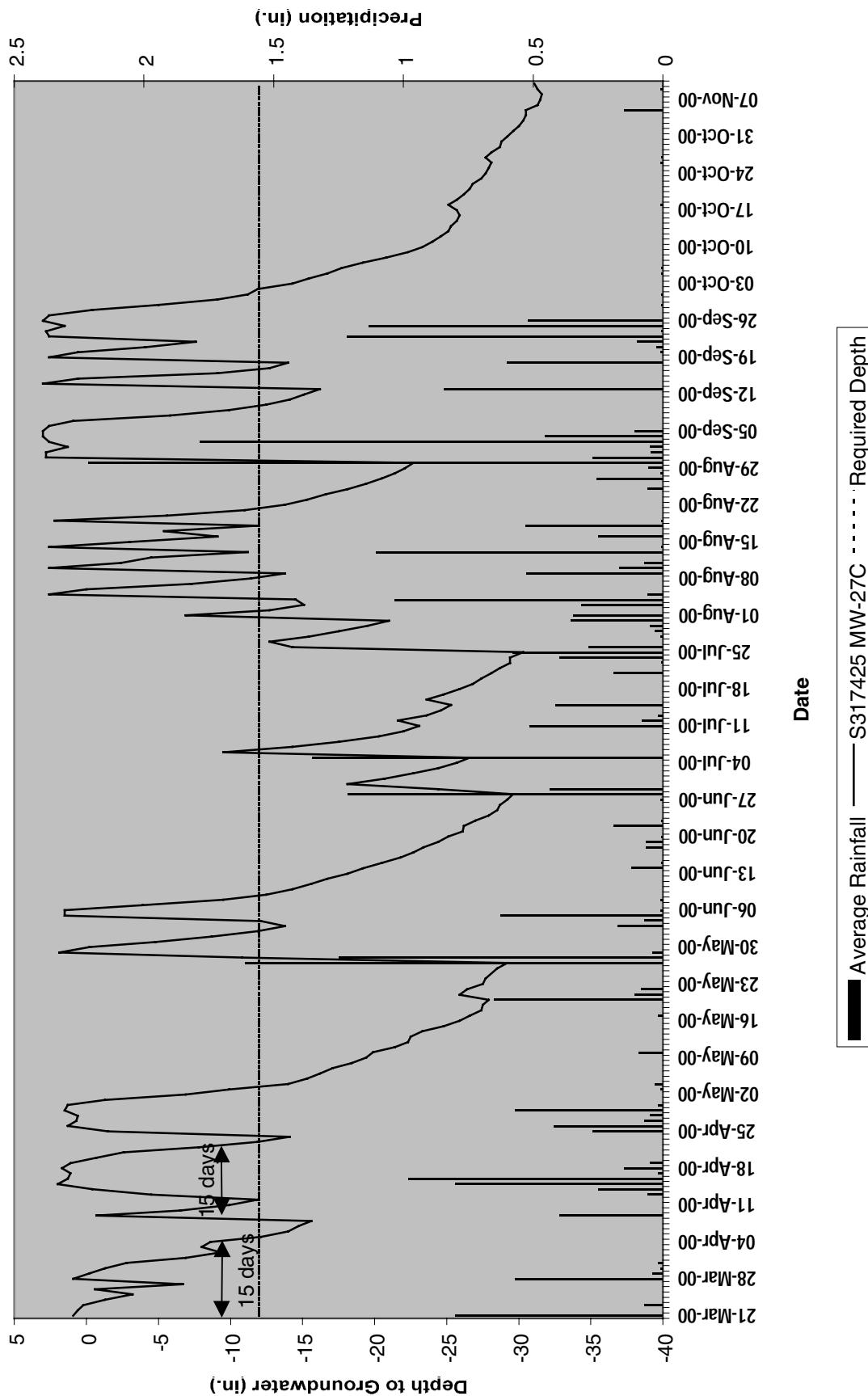
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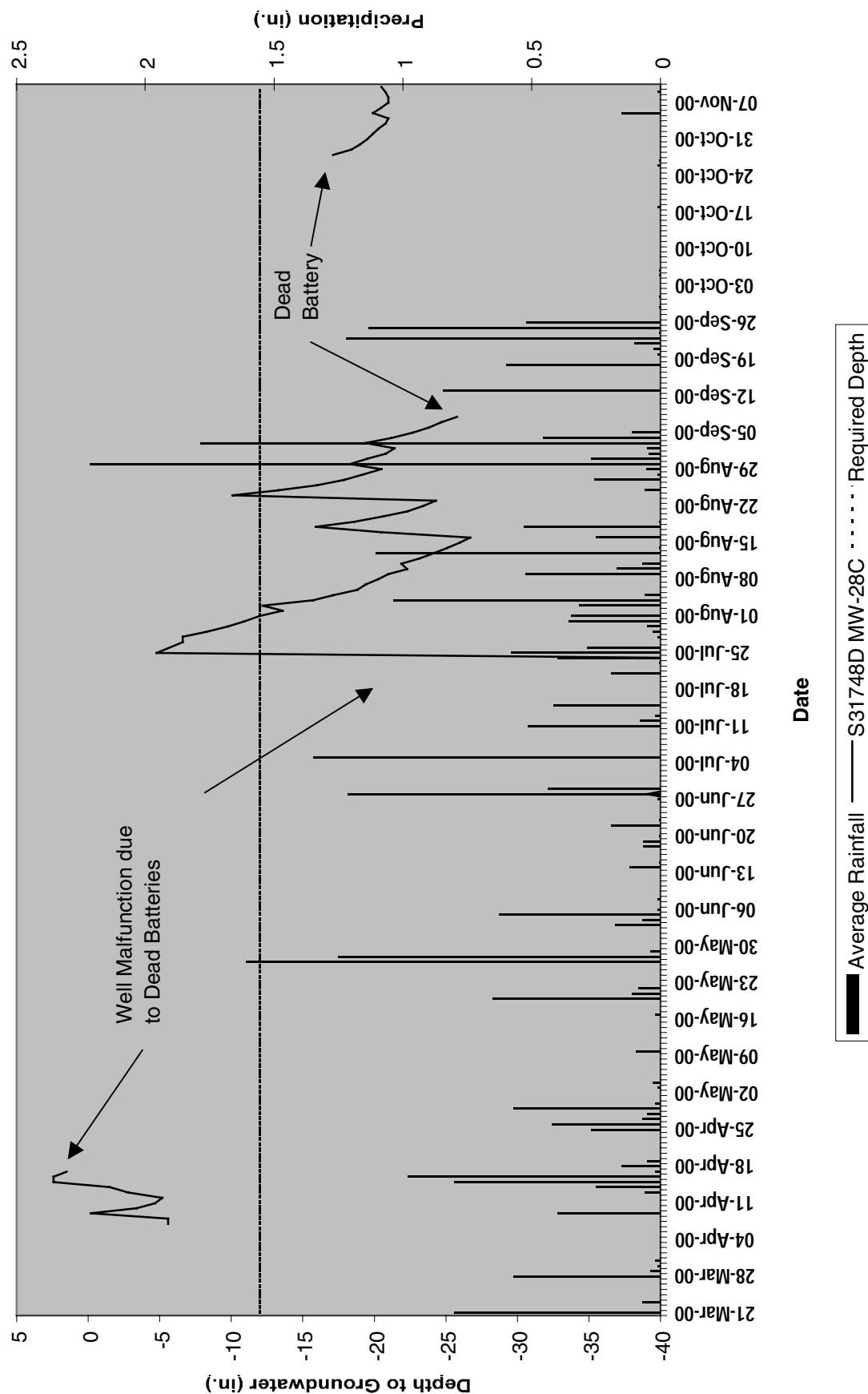
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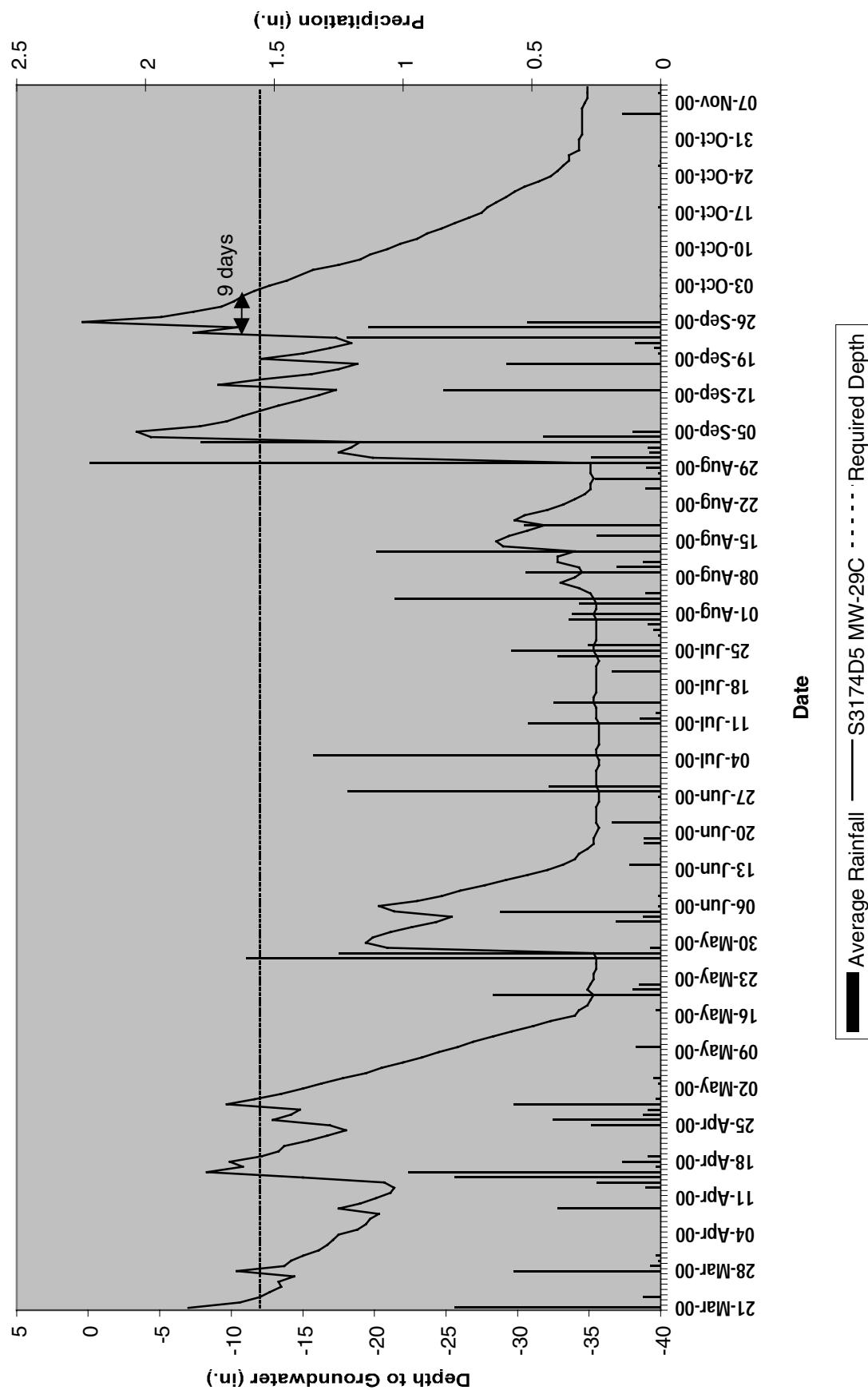
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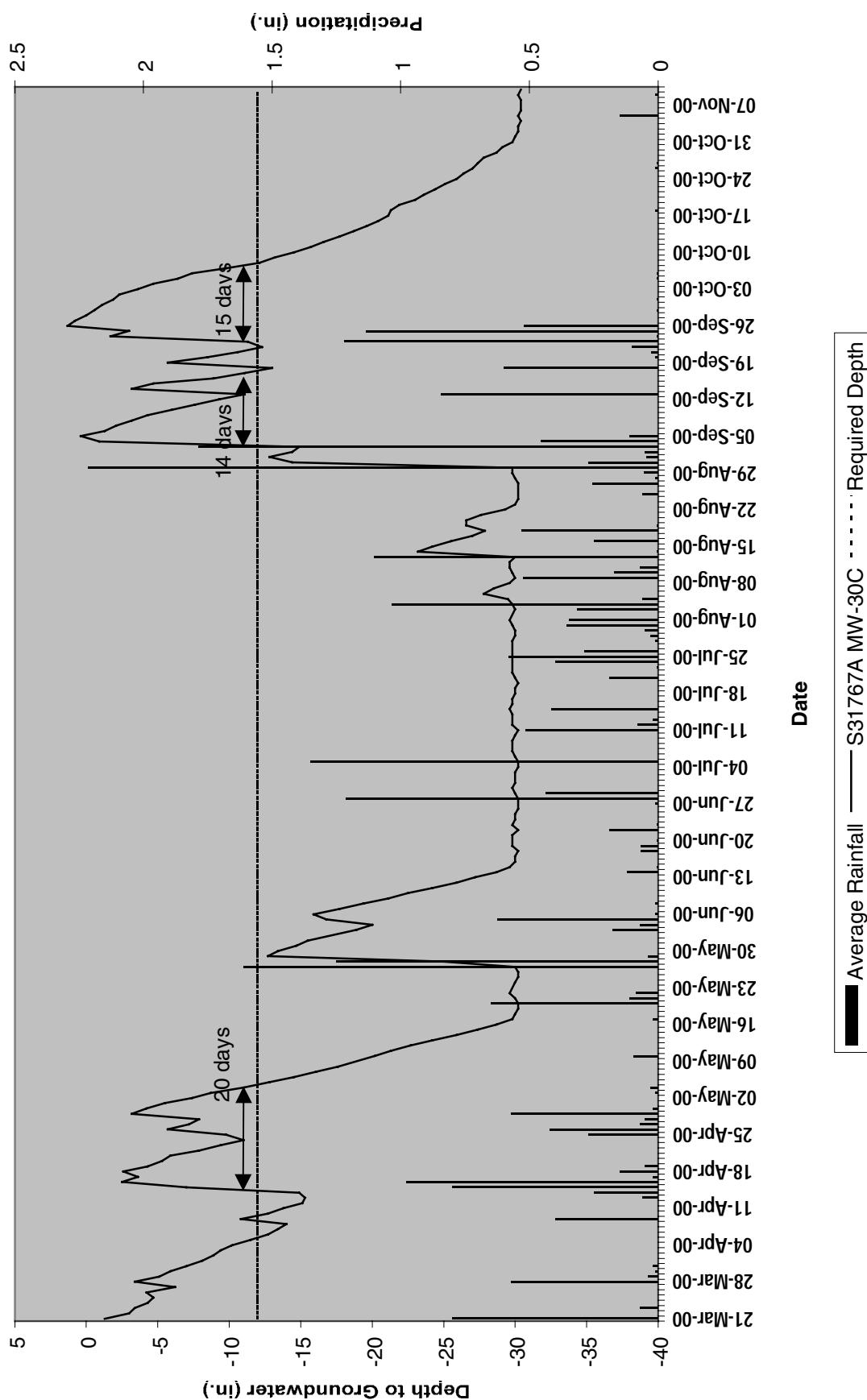
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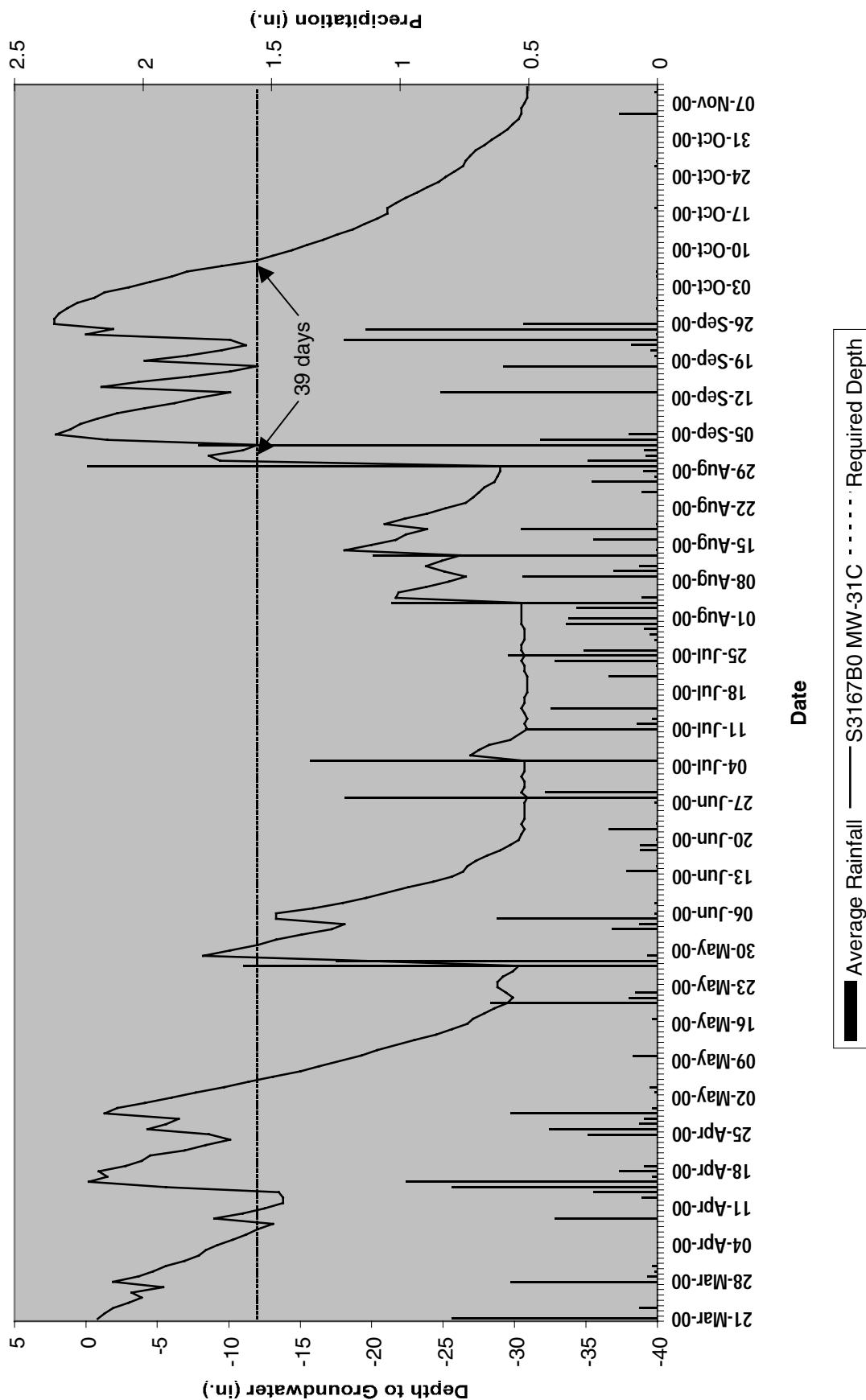
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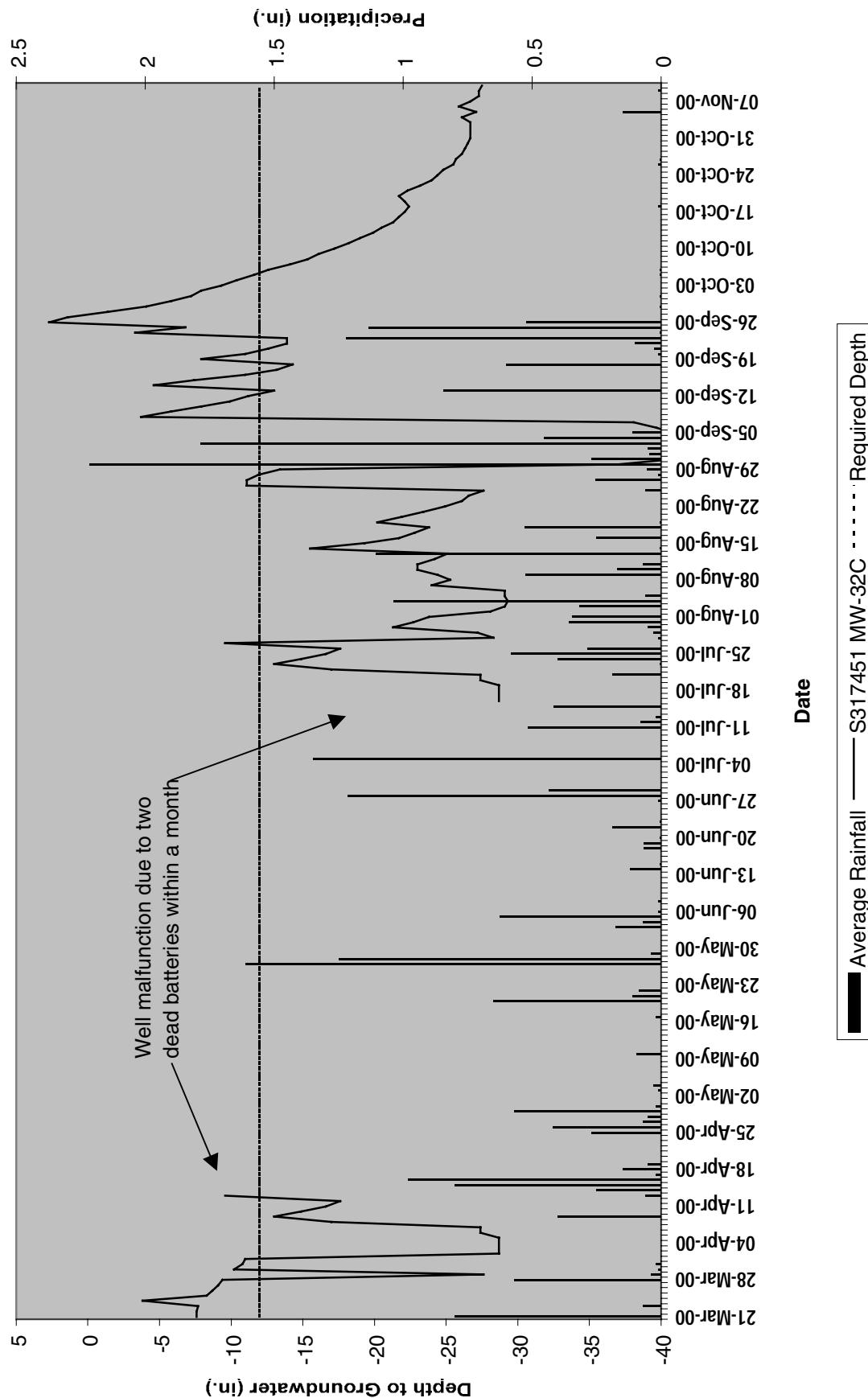
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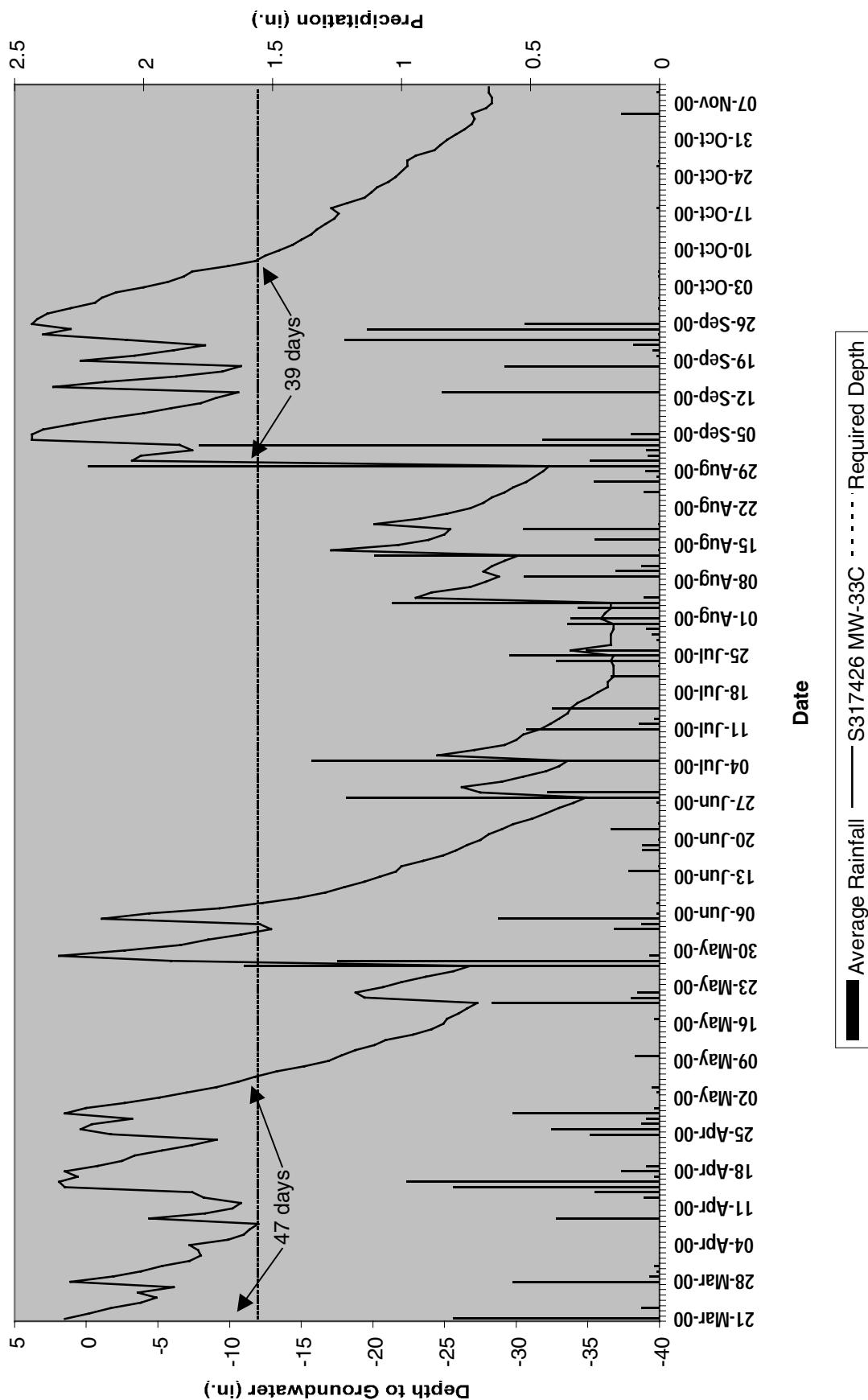
Mildred Woods MW-31C



Mildred Woods MW-32C



Mildred Woods MW-33C



APPENDIX B

SITE PHOTOS

MILDRED WOODS



Photo 1



Photo 2



Photo 3



Photo 4



Photo 5



Photo 6

MILDRED WOODS



Photo 7



Photo 8



Photo 9

2000 MONITORING PHOTO AND PLOT LOCATIONS

N. C. DEPARTMENT OF TRANSPORTATION

MILDRED WOODS TRACT

(MONITORING WELL LOCATIONS)
VEGETATION PLOTS ARE
ADJACENT TO WELLS.

SR 1523

